

# **A Framework for Business Acquisition**

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# Abstract

Business acquisition is an activity capable of generating immense value. Historically, companies have relied on this strategy to continuously grow and adapt their business, remaining relevant in the marketplace for time horizons that would not otherwise be possible and with shareholder returns that also historically outperform their peers. Furthermore, businesses are now transforming faster than ever, increasing the relevance of acquisition strategies in the modern market. Yet, there are as many reasons to stay positive as there are to be warned, as studies have shown that around 60% of deals are value destroyers.

This paper studies M&A and suggests a framework for guiding an acquisition process, hopefully guiding many teams to success in this challenging business. The developed framework is available as an attachment, thought it is especially suited for Sonae Capital, a Northern Portuguese holding enterprise. For this reason, the paper focus on explaining the various phases that must comprise a general framework, instead of strictly following the scripted document. The dissertation specially concerns the deal discovery, screening, financial and qualitative analysis, valuation using the discounted cash flows methodology suggested by Damodaran (1995), due diligence and legal agreements structure ,based on the firms previous experience, and methods for managing valuation discrepancies. Some insights over the integration phase are also briefly mentioned.



# Acknowledgements

I specially thank João Cerejeira for his dedication and helpfulness on this apprenticeship journey, allowing me to further study a field that has always been a deep interest of mine. I also thank my colleges at Sonae Capital for being so welcome and taking the time for sharing their knowledge, making this project possible. I thank my supervisor, Eduardo Gil Costa, for providing the necessary guidance and availability.

I am glad for these past years, for the friendships and moments that, among my friends, I have lived. I also take the moment to thank them for all their teachings.

I thank my mother, for worrying, believing and empowering me - she has given me confidence for a lifetime. I thank my older sister for successfully leading the way- everything seems simpler after the example. I thank my little sister for her joy and bad behavior. I thank my father for his persistent concern. I thank Catarina for her love and care, shared ambitions, teachings and willingness to be by my side.



*"Take a simple idea and take it seriously."*

Charlie Munger





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# Acronyms and Symbols

M&A	Merger and Acquisition
EV	Enterprise
FCFF	Free Cash Flow to the Firm
EBITDA	Earnings Before Interest Tax Depreciation and Amortization
EBIT	Earnings Before Interest and Tax
CAPM	Capital Asset Pricing Model
CAPEX	Capital Expenditures
OPEX	Operational Expenditures
WACC	Weighted Average Cost of Capital
CAGR	Compound Annual Growth Rate
SPA	Sale and Purchase Agreement
SHA	Shareholders Agreement



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# Chapter 1

## Introduction

This dissertation stands as part of the Masters in Industrial Engineering and Management at the Faculty of Engineering of the University of Porto (FEUP). It documents a project that took place at Sonae Capital, a northern Portuguese publicly traded, holding company. Sonae Capital was founded in December of 2007 and stands besides Sonae SGPS and Sonae Industria as the most recent subsidiary of EFANOR Investimentos SGPS. The company was created as a reorganization vehicle for acquiring non strategic assets of its related companies and transform them into strategic ones, propelling itself into a long-term plan that was yet to be uncovered.

### 1.1 Motivation

Twenty years after its creation, Sonae Capital stands as a much more mature company. It is organized within six strategic and greatly unrelated business segments, comprising hospitality, fitness, energy co-generation, refrigeration & HVAC, Resorts and, most recently, industrial engineering. Additionally, there are non-strategic real estate assets for sale, evaluated at 291M€ and a Resort in Troia, Portugal, evaluated at 83M€.

Although one can recognize the evolution of the transformation process so far, there is still work to be done. This is evidenced by the recent acquisition of ADIRA, a Portuguese company operating in the Metal Forming industry and the first one to integrate the industrial engineering segment at Sonae Capital. In the acquisition announcement there is a hint towards the development of a cluster of Portuguese companies, with engineering and technological development skills and strong export bias. The M&A team has been working towards that goal which has largely increased the number of potential acquisitions in the pipeline. This has led the team to redefine their M&A approach, resulting in an effort to define and optimize processes that are summarized in a framework, the soul of this project.

## 1.2 The Project

This project focuses on increasing the efficiency of the M&A activity at Sonae Capital. In the ongoing acquisition project, the team has opted to use a different approach. Companies were previously individually analyzed, mostly in different time frames. Given the large number of possible targets on the industrial automation segment, the team opted to study multiple companies at the same time, greatly improving its workload. In an effort to deal with the added work and thinking on the long term efficiency of acquisition processes, the team has developed a structured approach, materialized in a framework.

### **Industrial Automation Segment**

The industrial automation sector provides the background for the acquisition project, targeting Portuguese companies with expertise in the field and a significant maturity level. This strategy was decided by Sonae Capital administration prior to this paper and follows the trend for increasing the level of automation in industrial sites. Supply from companies in that segment typically consists of special machinery targeted at specific segments and/ or multi-sector automation projects such as designing, manufacturing and integrating manufacturing lines. These projects tend to be an easy sell given their very quick payback periods, averaging two to three years, according to interviews with the targets. At the same time, the introduction of automation in industrial sites raises quality standards and solves problems related to physically demanding tasks, previously performed by operators. Moreover, Portuguese firms have a cost advantage when compared to central European companies, provided by the intense demand for engineering hours at a cost that is three times lower, approximated by the differences in employee costs between Germany and Portugal. These costs typically represent 30% of the total revenues.

## 1.3 Objectives

The main takeaway for this project is the development of a framework for business acquisition, providing guidance and standardization for Sonae Capital teams on how to proceed in such an event.

## 1.4 Schedule

Figure 1.1 illustrates an activities schedule, divided into three streams, summarizing the initiatives performed by the M&A team that have contributed to this paper. Some might not be directly related to the business acquisition framework but have deeply contributed to the project in some fashion. The first group, "Industrial Automation Acquisition" summarizes the activities related to the potential acquisition of new businesses in the Industrial Automation field, gathering plenty insight that enriches this dissertation. The second group concerns the development of the framework itself as well as the study and initial integration steps of an online project tool for managing M&A pipeline, a process that is still in progress and is expected to be specially useful for integration phases. The final part, "Internal Meetings", as the name suggests, refers to a large number of interviews that were conducted to gather insight from people working at Sonae Capital' corporate center.

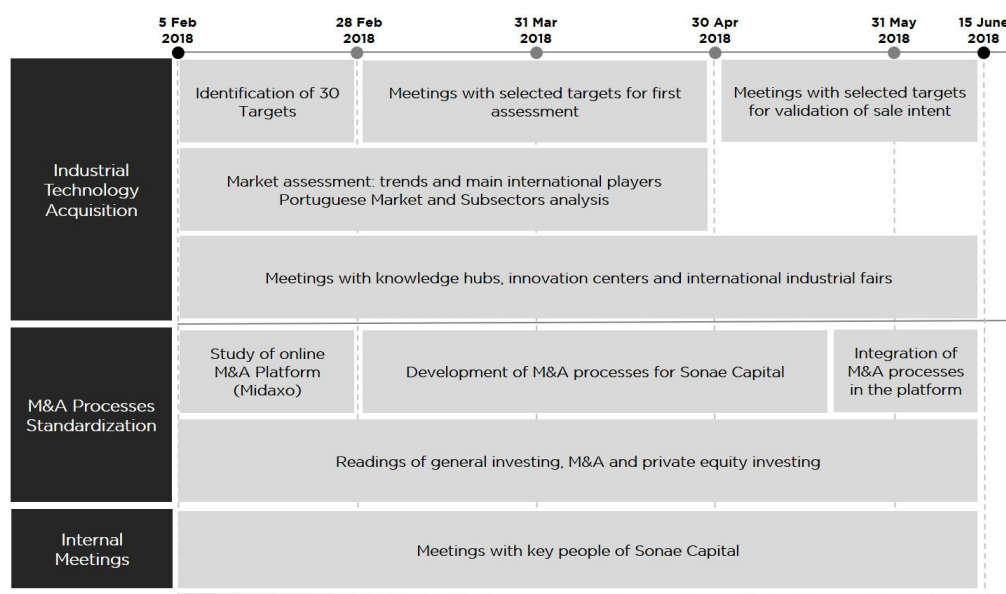


Figure 1.1: Activities' Chronogram

## 1.5 Structure

The literature review chapter presents the M&A field through its definition and history while providing its reasoning and risks. A structured process approach is introduced alongside facts concerning acquisition frequency and strategy traits. Lastly, two valuation methods are discussed, with emphasis on the discounted cash flow valuation method.

The proceeding chapter concerns the framework for business acquisition, as advertised in the title of this dissertation. An overview through the whole process is provided and is followed by a chronological description of the most important stages and processes comprising insights from Sonae Capital team's experience.

Conclusions and future work are presented in Chapter 4, alongside a brief statement concerning the challenges and successes around this dissertation.

The framework file, translated to English, is available in the appendix section. The format is optimized for the internal teams involved in acquisition processes, therefore favoring practicality, opposite to chapter 3.

## **Chapter 2**

# **Literature Review**

This chapter will address the principles for M&A, from structured processes to valuation techniques, covering the existing literature and generally used practices. Furthermore, internal information from completed and dropped deals at Sonae Capital was also considered, given the maturity of these processes and the expertise of its portfolio development team.

### **2.1 Defining Merger & Acquisition**

Edinburgh Business school briefly defines Merger & Acquisition as as the combination of two or more companies into one new company or corporation. The acquiring company obtains the majority stake in the acquired company. When both companies are combined into one, it is a merger. Although it may be described as a moment in time in which legal documents are signed, these are time consuming processes comprised of many tasks preceding and proceeding that moment.

## 2.2 M&A History

As evidenced by Upfina (2018), based on Thomson Financial data, M&A activity has historically been on the rise, both in number of deals and global transaction value. The aggregated value of these deals as well as their number correlates with the cyclical nature of the economy. These values typically rise with economic expansion and fall during recession periods (Figure 2.1). This behavior has led economists to characterize the periods of high M&A activity as waves. So far, there have been 6 waves and at present time, a seventh wave is taking shape.

The graphic below exposes this trend since 1985 to 2017 and presents an estimate for the current year. Furthermore, the current year estimate sets a record braking transaction volume, potentially surpassing the \$5 trillion.

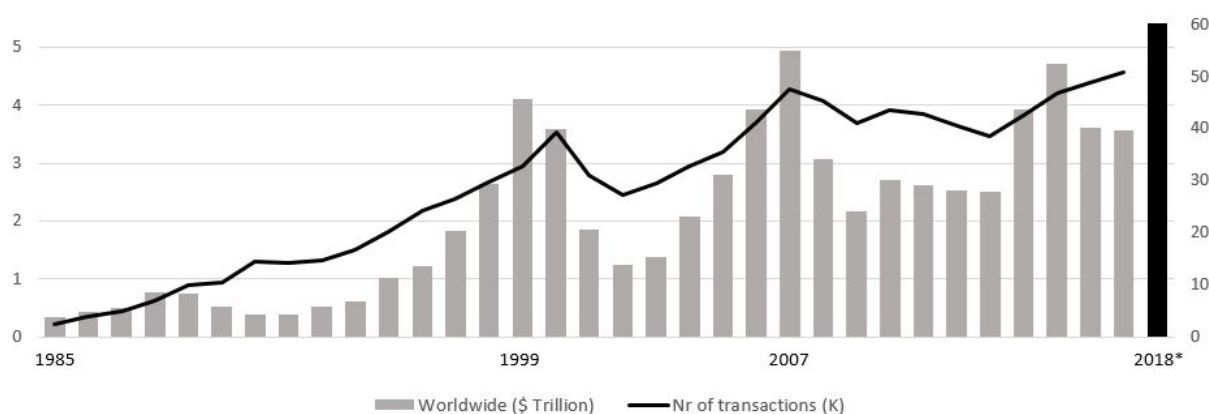


Figure 2.1: Worldwide Merger and Acquisition transactions' number and volume (Upfina, 2018)

Figure 2.2, provides an overview of M&A activity divided across regions, comprising only the values of transactions made from year start up to 26 of May of each year, since 1999. As observed, M&A activity in the Americas, in which the United States plays a vital role, is the biggest closely followed by Europe. Furthermore, the current 2018 value provides an estimate for the, above mentioned, record braking.

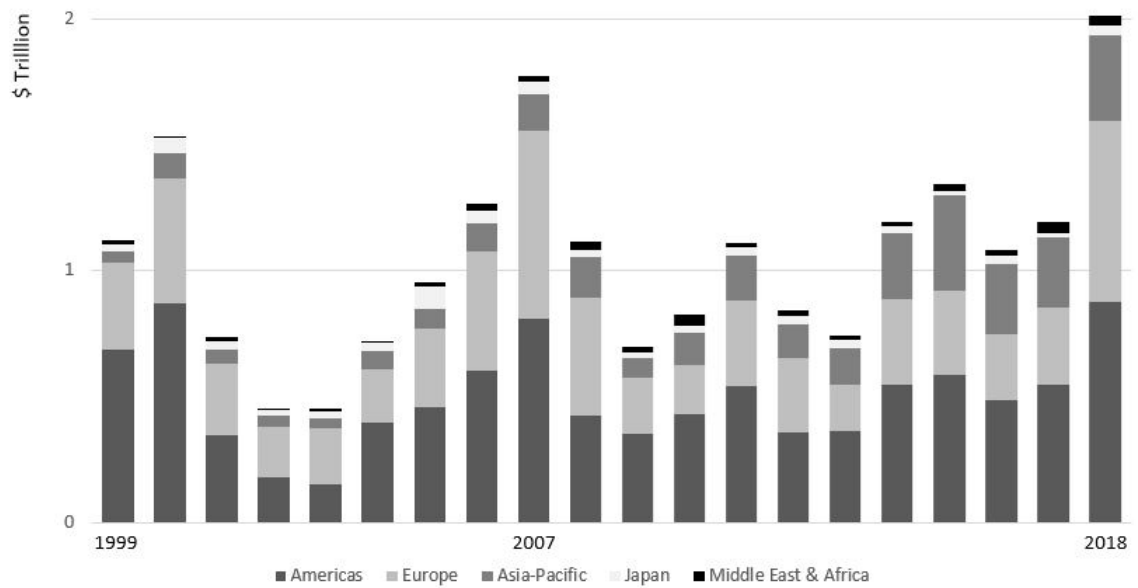


Figure 2.2: Merger and Acquisition volume by region (Reuters, 2018)

Although not every wave is tracked in the charts above, Figure 2.3 comprises all the waves prior to 2002, as documented by Steger und Kummer (2007).

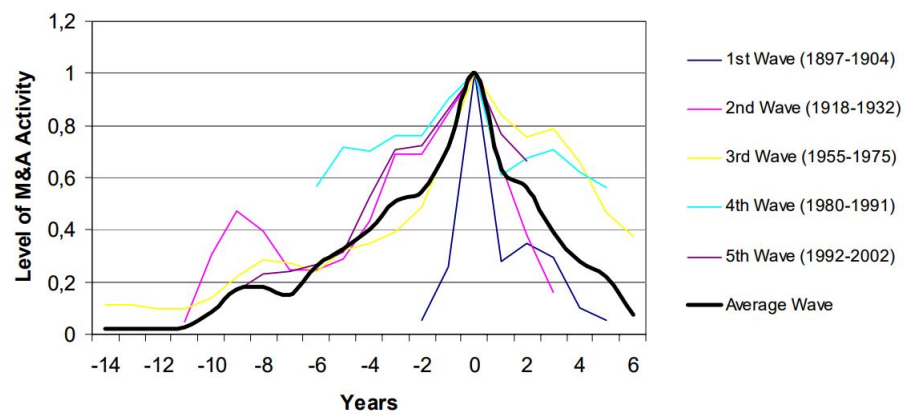


Figure 2.3: Merger and Acquisition Cyclical Character (Steger und Kummer, 2007)

## **2.3 The Reasoning and Risks of M&A**

### **2.3.1 Macro Conditions**

In the current post-crisis world, governments have been trying to stimulate the economy and improve the low economic growth rates. As documented by The Economist (2015), quantitative easing policies have been adopted, lowering interest rates and increasing money supply. These measures have created an opportunistic scenario for M&A as companies find it easier to finance these deals at a low cost. Furthermore, companies that struggle to develop organic growth have an alternative strategy for growing their business.

### **2.3.2 Reasoning & Synergies**

Continuous acquisition is an important strategic option with which companies can take the necessary steps to remain relevant in the marketplace. According to MacArthur (2018), companies that made twelve or more acquisitions between 2005 and 2015 enjoyed 39% higher returns than those that made no acquisitions over the same period.

Acquisitions can help companies to obtain a higher market share, market power, a broader customer base for cross-selling, deepen internationalization, and gain access to new technology, products, distribution channels and talent ((MacArthur, 2018)). Benefit from tax optimization when a profitable company buys a money-losing firm and diversify to stabilize earnings results to boost investors confidence. Moreover, the combination of two companies can have synergistic effects at operational and governance levels, meaning that the aggregate value of the companies is greater than their separate value. Furthermore, synergies are an important driver for M&A activity, specially in mergers where both companies typically share similar processes, with potential for cost reduction and revenue enhancement. Cost reduction may come from the added size of the company and its power towards clients and suppliers but it also comes from internal operations efficiency such as administrative, logistics manufacturing optimization. Regarding the revenues, there is the possibility of widening the customer and product base by unlocking cross-selling potential. Still, management must be very cautious when estimating the synergistic potential of a deal as it may not be taken for granted.

### **2.3.3 Risks**

Nevertheless, M&A is very risky and prone to failure, endangering the financial and operational stability of both companies. These risks may come from financial over-leverage, poor integration, lack of cultural fit and unrealistic synergies' expectations. Cultural fit must be assessed in the first phases of the acquisition while the integration process should be continuously planned, monitored and executed. Depending on the level of integration, it may be more or less complex. In regards to the financial over-leveraging issue, management must evaluate if the debt level is a manageable liability and how interest rate changes may affect their business in the future. Moreover, lack of



experience in M&A combined with pressure to complete a deal may harm the operation success, resulting in deal break or even overpayment (PWC, 2016).

#### 2.3.4 Example

Hanesbrands is a US based company with a vertically integrated business model, acting on the everyday basic apparel sector with more than \$6 Billion annual sales. It fits the the described criteria given that organic sales have been slightly negative for the past years and the company has managed to grow sales by acquiring other firms worldwide. This moves allowed them to focus on faster growing markets and brands, taking advantage of the low interest rates and enjoying efficiency increases, through supply chain synergies. These are so relevant that, on average, the costs of the acquired company are reduced on 20%, as provided by HBI (2016) on their quarterly release of frequently asked questions and annual report. Bellow is a summary of the company's current status:

- Top line and EBITDA growth, almost entirely coming from the acquisitions;
- Positive organic growth achieved in the last three quarters;
- Debt level and financial leverage has increased to 3.4x EBITDA, therefore increasing the riskiness of the company.

The operational efficiency of the company still remains about the same. Yet, the latest years have extraordinary expenses in the order of 200M\$ due to integration costs. These are expected to reduce over the near future and management plans to focus on efficiency to deliver sizable synergies from the acquisitions, increasing cashflow from operations by 50% by the end of 2019. The market now questions if management will be capable of delivering on those promises and effectively be successful on the acquisitions.

## 2.4 Processes

Across various business and industrial related tasks, the introduction of processes is an opportunity for reviewing methodology and work-flow related to the task and strive for increasing its efficiency through standardization, typically reducing costs and increasing the output of the resources being used. When the focus shifts towards merger and acquisition, the same principles still apply. Moreover, the results of a bad output are far more disastrous than a defective batch, harming the future of both involved organizations. The following structure is presented by Robert T. Uhlaner (1998) and still remains relevant.

To ensure the overall integrity of the operation, the author suggests the adoption of a rigorous stage gate processes, divided into three separate stages, as presented below:

- At first, the corporate/ portfolio development team must co-work with people from the related business unit to define a strategy, evaluate targets assessing how they could help the organization to grow, their worth and how they compare to each other. At this point, the plan must start to structure key technical due diligence objectives and anticipated integration issues. A deal owner must be assigned and decisions must be made to filter the companies which have a compatible corporate strategy, support from the board and potential for a successful integration. Only at the end of this process it is possible to move to the second stage;
- At this intermediate stage, the portfolio development team decides on a price range that is in line with its strategy, sends a letter of intent, finishes structuring a non-binding offer and sets a roadmap for further negotiations. To achieve this, the team must access new confidential information, shared by the target, with protection of a non disclosure agreement, and perform initial due diligence with this information. In addition, early management meeting must take place and the integration potential must be further assessed. If all goes well, the target is approved to undertake technical, financial, tax and legal due diligence. At this point, if no deal braking findings arise, the target is due to approval of the board of directors and if positive, it successfully completes the second stage;
- If all went well in the previous stages, this last stage is reserved for deal negotiation and closing, leaving aside previously discussed matters as strategic fit and integration risks.

One can now argue that the process is yet to be completed and suggest a final stage for integration although it is partially unrelated to the M&A process itself.

## 2.5 Acquisition Frequency

Accordingly to Sam Rovit (2003), it is historically proven that companies that frequently perform acquisitions are more successful, in that endeavor, than the unexperienced ones. That is mostly explained by their capacity of walking away from risky deals. Furthermore, concerning the timing of the acquisitions, companies that buy systematically through economic cycles are the ones that outperform their peers (Figure 2.4).

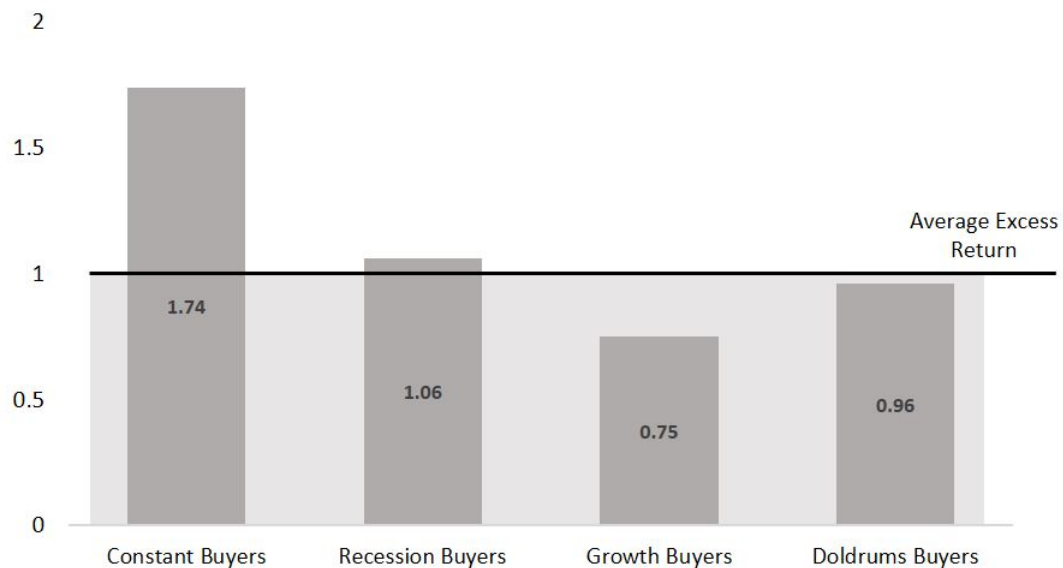


Figure 2.4: Excess Return by Investor Timing Strategy (Sam Rovit, 2003)

These successful frequent buyers share some traits concerning their strategy. They start with small deals, optimize their processes, and implement feedback systems to continuously improve them by reducing past mistakes. They continually review targets until a pricing opportunity arises. Furthermore, these companies have an M&A team, that participates in all acquisitions leveraging on the knowledge from past deals. Lastly, these companies involve line management in the due diligence phase and provide focused guidelines for the integration phase (Sam Rovit, 2003).

## 2.6 Valuation

This section will be limited to the valuation of productive assets, specifically businesses. These differ from the others as they have the potential to generate a return. A business is considered a productive asset because it can generate income. On the other hand, a kilogram of gold does not generate any income. Land is another interesting example, it is a non productive asset until it is explored as a farm, thus generating an income and justifying an intrinsic value that is higher than the price of the land.

- Valuation is, in the context of this paper, the definition of intrinsic value;
- Intrinsic value is, according to Graham (1949), the value which is justified by the facts (eg.: assets, earnings, dividends).

Although valuating a business may seem an exact operation, it is in fact ambiguous and subject to the investor's assessment of risk and prediction of the future, as discussed in "The Intelligent Investor" by Graham. Therefore, when observing the market value for a public traded asset, the investor may disagree with the market's valuation. If the asset trades at a discount compared to his valuation, he may seize the opportunity and acquire it. The difference between intrinsic value and market value is called margin of safety (Graham, 1949).

### 2.6.1 Discounted Cash Flow Valuation

A possible method, further discussed by Damodaran (1995) in his book *Investment Valuation*, for valuating a firm's value is to predict how much funds it will be able to generate in the future and discount them for the present date, arriving at the enterprise value (EV). This assessment refers to the overall company's value, comprising equity and debt. When assessing the equity value alone, debt obligations must be deducted from the calculated number.

#### **Free Cash Flow to the Firm**

Free Cash Flow to the Firm (FCFF) refers to the previously mentioned ability of a company to generate funds that can be distributed to the company's equity and debt claimants. Unlike earnings, it subtracts all the capital investments necessary to keep the business running and sums the depreciation and amortizations that are not real outflows of cash. As an example, having additional inventory or manufacturing equipment in the balance sheet does not directly impact earnings, however, if those assets are required to keep the business running, they can not be perceived as a relevant return of the firm's operations. A simplified equation is shown below (Equation 2.1) (Damodaran, 1995) :

$$FCFF = Net\ Income - Interest * (1 - tax\ rate) + Depreciation - Capex - Changes\ in\ Working\ Capital^* \quad (2.1)$$

With:

$$Operating\ Cash\ Flow = EBIT + Depreciation - Tax \quad (2.2)$$

$$Changes\ in\ Working\ Capital = \Delta Current\ Assets^* - \Delta Current\ Liabilities^* \quad (2.3)$$

\*Cash and Short Term Debt are disregarded in the Changes in Working Capital and will later be part of Net Debt

Where:

EBIT: Earnings Before Interest and Tax

Capex: Capital Expenditures

A defined period is set, in accordance to the foreseeable future, and a mathematical prediction model is created to calculate the FCFF for those years. This model can be as complex as desired but the simpler approach is to predict sales and obtain other variables as a function of them, using sensible ratios from the past. These values must be discounted to the present, given a determined cost of capital, calculated as the Weighted Average Cost of Capital (WACC), shown in Equation 2.5 (Damodaran, 1995).

$$WACC = \frac{E}{V} \times Re + \frac{D}{V} \times Rd \times (1 - Tc) \quad (2.4)$$

Where:

Re = cost of equity

Rd = cost of debt

E = market value of the firm's equity

D = market value of the firm's debt

V = E + D = total market value of the firm's financing (equity and debt)

E/V = percentage of financing that is equity

D/V = percentage of financing that is debt

Tc = corporate tax rate

Cost of debt (Rd) is deterministically obtained as the effective rate that the company pays on its debt. Cost of equity (Re) is the compensation that a given investor demands in exchange of the the risk of owning the asset. It is therefore a subjective value that depends on the risk assessment.

Still, one can use the Capital Asset Pricing Model (CAPM) to obtain a proxy for the cost of equity, as shown in Equation 2.6 (Damodaran, 1995).

$$Re = Rf + \beta \times (Rm - Rf) \quad (2.5)$$

Where:

$Rf$  = Risk free rate of return

$Rm$  = Market expected rate of return

$\beta$  = Volatility of the security' returns compared to the market

Risk free rate is usually addressed as the 10-year US treasury rate as it has virtually 0 risk of default. Still, investors must remain cautious because risk of default differs from overall risk. As a bond, it is subject to variations in interest rates. According to Buffet (2018), the larger the holding period the higher the risk, given that it is very unlikely that interest rates remain so low and their upside potential is very limited. Contrarily, stocks have reduced risk as time passes. The following chart demonstrates how risk reduces as a stocks are held for a long period (Upfina, 2018).

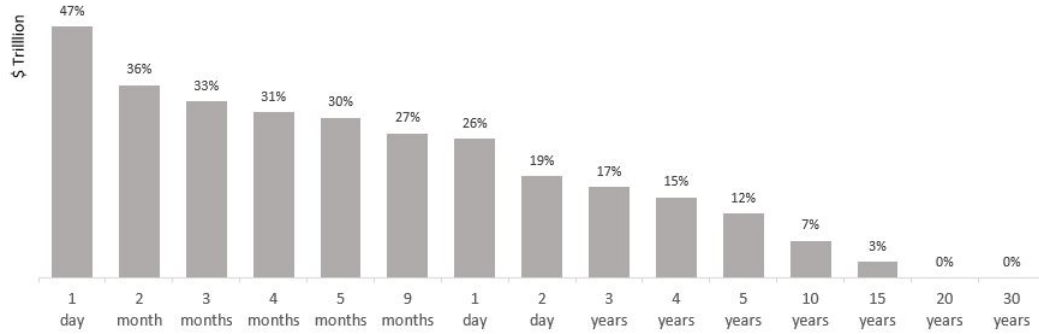


Figure 2.5: Percentage of negative returns in the S&P500 by holding period (Upfina, 2018)

The chart verifies the information above and comprises S&P500 data from 1928 until the end of 2017.

Market expected rate of return is the yield at which the overall market compensating investment. Under normal circumstances, this value is expected to be higher than the "risk free rate" given its added risk.

Beta estimates the volatility of the security compared to the market (or index) as a whole. it is a metric based on market price.

$$\beta = \frac{Cov(R_i, R_m)}{Var(R_i)} \quad (2.6)$$

Where:

Cov: Covariance

Var: Variance

If the volatility of the asset (i) is the same as the market (m),  $\beta$  equals 1. If the asset reacts twice as much when compared to market moves, its  $\beta$  equals 2. Though, this measurement is also subject to criticism as a strong downward stock move would increase volatility and  $\beta$ , therefore allegedly increasing its risk. A value investor might argue that such a move makes the asset more attractive and risk comes from other qualitative factors, such as business size, sector, management and others that not the market pricing changes: "I find it preposterous that a single number reflecting past price fluctuations could be thought to completely describe the risk in a security. Beta views risk solely from the perspective of market prices, failing to take into consideration specific business fundamentals or economic developments. The price level is also ignored, as if IBM selling at 50 dollars per share would not be a lower-risk investment than the same IBM at 100 dollars per share" (Klarman, 1991).

Although there is plenty discussion on how to calculate the equity premium, there is agreement that reward and risk should be correlated and risk free rate of return also affects the assets valuation (Szramiak, 2016). Based on these principles, it is up to the individual investor to determine his strategy for assessing the equity premium.

After determining the WACC, it is possible to obtain the Present Value (PV) of the cash flows from future periods, by discounting them to the present at this rate (Damodaran, 1995).

$$PV = \frac{CF_1}{(1+WACC)} + \frac{CF_2}{(1+WACC)^2} + \frac{CF_3}{(1+WACC)^3} + (...) + \frac{CF_n}{(1+WACC)^n} \quad (2.7)$$

Where:

$CF_n$  = Cash Flow from period n

WACC = Weighted Average Cost of Capital

As estimates of cash-flows move into the future, projections get naturally worse. At some point there is no foreseeable future (from  $t + 1$ ). Thus, in accordance to the Gordon's model, all other cash-flows to perpetuity are condensed in one parcel, named Terminal Value (TV) (Damodaran, 1995).

$$TV = \frac{CF(t+1)}{WACC - g} \quad (2.8)$$

Where:

$CF_t$  = Cash Flow from period t

t = last foreseeable period

$g$  = long term growth rate estimate for the future

The formula derives from a geometric series as explained below:

$$TV = \frac{CF1}{(1+WACC)} + \frac{CF2}{(1+WACC)^2} + \frac{CF3}{(1+WACC)^3} + (...) + \frac{CFn}{(1+WACC)^n} \quad (2.9)$$

$$TV = \frac{CF1}{(1+WACC)} \times \left( \frac{1+g}{(1+WACC)} \right)^0 + \frac{CF1}{(1+WACC)} \times \left( \frac{1+g}{(1+WACC)} \right)^1 + \frac{CF1}{(1+WACC)} \times \left( \frac{1+g}{(1+WACC)} \right)^2 + (...) + \frac{CF1}{(1+WACC)} \times \left( \frac{1+g}{(1+WACC)} \right)^{n-1} \quad (2.10)$$

With the following substitutions:

$$a = \frac{CF1}{(1+WACC)} \quad (2.11)$$

$$r = \frac{1+g}{(1+WACC)} \quad (2.12)$$

Plugging the new variables in the formula:

$$\begin{aligned} Tv &= a + ar + ar^2 + (...) + ar^{n-1} \\ Tv \times r &= ar + ar^2 + ar^3 + (...) + ar^n \\ Tv \times r - Tv &= a - ar^n \\ Tv(1-r) &= a(1-r^n) \\ Tv &= a \frac{(1-r^n)}{(1-r)} \end{aligned} \quad (2.13)$$

Given that  $r < 1$ , then  $r^n = 0$

$$Tv = a \frac{1}{(1-r)} \quad (2.14)$$

Substituting the variables in the formula:



$$\begin{aligned}
T_v &= \frac{CF_1}{(1+WACC)} \times \frac{1}{(1 - \frac{1+g}{(1+WACC)})} = \\
&= \frac{CF_1}{(1+WACC)} \times \frac{1}{(\frac{1+WACC-1-g}{(1+WACC)})} = \\
&= \frac{CF_1}{(1+WACC)} \times \frac{1+WACC}{WACC-g} \\
&= \frac{CF_1}{WACC-g}
\end{aligned} \tag{2.15}$$

Given that the terminal value is only used after the foreseeable periods, it must start after them (t+1) and be discounted from t, to the present, resulting in the following adaptations to the formula:

$$T_v = \frac{CF(t+1)}{(WACC-g)} \tag{2.16}$$

At this point, the final formula can be presented as follows:

$$PV = \frac{CF_1}{(1+WACC)} + \frac{CF_2}{(1+WACC)^2} + \frac{CF_3}{(1+WACC)^3} + (...) + \frac{CF_t}{(1+WACC)^t} + \frac{CF(t+1)}{(WACC-g)} * \frac{1}{(1+WACC)^t} \tag{2.17}$$

As previously mentioned, this formula contemplates the enterprise value, comprising equity and debt. To assess the equity value, the Net Debt is subtracted. The cash and short term debt that were neglected from the  $\Delta$  working capital are now contemplated in the Net Debt calculations (Damodaran, 1995).

$$Equity\ Value = Enterprise\ Value - Net\ Debt \tag{2.18}$$

### 2.6.2 Relative Valuation

Relative valuation models are an alternative to absolute valuation models. They do not try to determine a company's intrinsic worth as seen in the DCF model above. Instead, these methods attempt to value the company based on the value of comparable companies, by using a common variable such as revenues, earnings or cash flows. This establishes some sense for valuation based on multiples of other firms acting in the same industry.

Among the most frequently used and readily available multiples are the price to earnings (PE) ratio and enterprise value to EBITDA (EV/EBITDA). Though, investors must be very careful when using these as they can hide important aspects of a company's value. In case of having a company with high CAPEX needs, these multiples may fail to comprise this factor. EBITDA simply disregards depreciation and amortizations while earnings and EBIT can be fooled if these values are

far from being a CAPEX proxy. It is therefore advisable that investors assess multiples that are transparent regarding free cash-flow and combine different metrics to obtain an colorful picture. Furthermore, the selected peers for comparison should be as similar as possible, sharing the same industry, sales volume, specific sector, growth rates, capital requirements, capital structure and other relevant factors. (Ennis J. Walton, 1981).

## Chapter 3

# Framework for Business Acquisition

This chapter presents the developed framework at Sonae Capital, based on the principles presented on the literature review chapter and with insights from the ongoing acquisition project. It is specifically adapted to the company's strategy, therefore focusing on majority stake acquisitions of privately held businesses.

The framework is divided within six stage gate processes with multiple tasks at each step. This structure ensures the overall organization and continuity of the acquisition projects, limiting the potential for disorganization. Moreover, it is expected that processes become more efficient.

As previously mentioned, Sonae Capital is in the middle of an acquisition project that encompasses a large number of potential targets. As a result, the need for organization and standardization in the portfolio development team is crucial for the success of the operation. An overview of those processes is summarized in Figure 3.1.

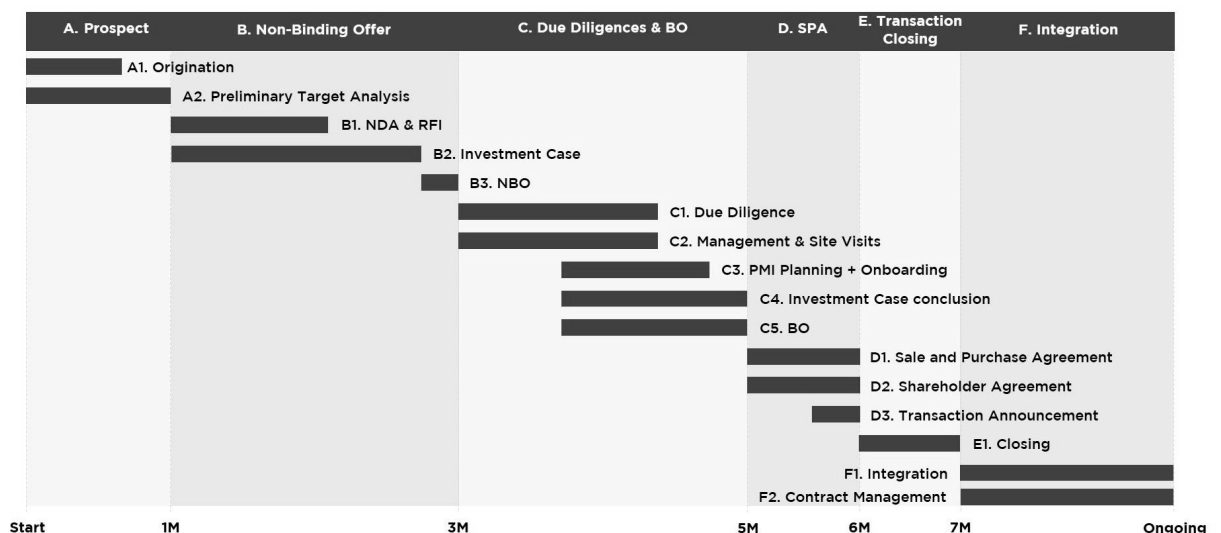


Figure 3.1: Chronogram of M&A Processes

The framework is divided into six stages comprising sixteen macro processes and the projected average duration of about 9 months. Still, these numbers are just an indication that will most likely

vary between projects.

Through the following pages, the sections and tasks present on the schedule will be analyzed and discussed, including highlights and insights from the portfolio development team. The framework is not standard but so far has been useful to Sonae Capital and will hopefully inspire other M&A teams.

The themes are discussed based on their relevance and substance rather than following a very strict approach. This approach differs from the framework but the intent is to provide the reader with the best insights and capacity to develop their own model. The framework document is available as an appendix.

## **3.1 Prospect**

This stage sets the foundations for the acquisition project. It comprises the origination and preliminary target valuations, meaning that it is the phase in which potential targets are found and then evaluated, in a primarily go/no-go decision.

About 40 companies were screened on the ongoing acquisition project. Given the high number, it proved to be much more efficient to search potential targets in an aggregated approach and, instead of focusing on finding the best potential targets, the team focused on blocking the ones that did not fit the defined strategy.

### **3.1.1 Origination**

This task represents strategy definition, selection of deal-flow sources and enterprises discovery phase.

#### **Strategy**

Strategy refers to the type of deals that the holding company will be performing. These can be:

- New businesses that fit in the investment policy;
- Add-ons for existing business units;
- Divestment of business or entire business unit.

The ongoing acquisition project at Sonae Capital fits the new businesses acquisition category. Yet, there are some expected synergies with the current portfolio of the company.

#### **Deal-Flow**

The easiest method for initiating deal-flow is to outsource the activity to third-party brokers, typically consultancy companies and investment banks, that deal with the request and try to find potential targets. Although it is the most straight forward method, it may involve fixed and variable fees that depend, among other factors, on the final transaction price. Similarly, these brokers

are sometimes hired by enterprise owners that want to sell their shares. In this case, a confidential information memorandum, info-memo, is prepared, comprising important information to value the company, and is then distributed across potential buyers such as Sonae Capital. The alternative is to manage the deal-flow process internally, as in the current case study. Companies usually subscribe to platforms (such as Reuters or Sabi) to search business databases that contain considerable amount of useful data.

#### **Internal Enterprises Discovery Phase**

Regarding the use of databases, the team explored financial and qualitative data. Regarding financial data, the user may filter the listings by business description and financial information such as revenue, growth statistics or even create his own variables. This is particularly useful as it enables to screen results according to a strategy. As an example, one may screen by a high value of Debt/EBITDA to find financially troubled companies.

Concerning the qualitative data, it is often found to be useful to use industry classification codes. These can be usable to find companies in a chosen sector. Still, one must be aware of mis-assigned codes and therefore the questionable reliability of this method. Consequently, it is helpful to complete this search by looking for these companies websites and readily available information to be able to filter and refine the previously obtained listings.

#### **3.1.2 Sectoral Overview**

Comprehension regarding the sector and benchmarking of national solutions against international market leaders is indispensable. Such outcome is achieved by investigation, visits to sectoral events such as fairs and seminars and by exploring knowledge hubs.

The portfolio development team visited the largest European industrial fair, Hanover Messe, attended a Smart Manufacturing Seminar in Porto and established contacts and meetings with national universities. All this was crucial for developing a satisfactory knowledge of the industrial dynamics of the automation segment. By then, the team understood the sub-sectors, structure, main trends, product and services portfolio of the identified targets and relevant players in national and international markets and was confident to continue the acquisition process

#### **3.1.3 Preliminary Target Analysis**

Information sourced from LinkedIn, available news, companies' website and business databases was extracted and analyzed to obtain fundamental insight for the first administrative approval.

A presentation was created, comprising information from the previous topics to provide a background for analysis and specific information of each firm for individual assessment. This comprises age, headcount, headquarter' location, product and services, financial statements, ownership structure and management team analysis. All this was presented to Sonae Capital administration and resulted in the selection of around twenty companies that proceeded to the next phase.

### 3.1.4 Target Analysis

As the acquisition process continuous, there is the need to develop a deeper understanding of the targets, only achieved with additional information that is not readily available. While public companies issue annual and quarter reports that comprise very insightful information, private companies are much less exposed. Consequently, the team had to directly contact the shareholders of these companies to inquire them on their availability to meet with Sonae Capital M&A team. Fruitful communications resulted in direct meetings and headquarter visits, allowing the team to further investigate the targets, gathering information discussed on the following topics

#### **Portfolio**

Companies were segmented by their positioning and technologies, comprising systems integration, Robotics and Automation, Industrial Internet of Things and Virtual and Augmented Reality. Main project and product lines were documented and evaluated.

#### **Clients Portfolio**

The clients' portfolio is a crucial characteristic for assessing value. If companies work with established enterprises, it acts as a validation mechanism in their favor and has a possible synergy for cross-selling. This way, the team classified customer portfolios as OEM, tier1 or tier2.

#### **End Markets**

According to the defined strategy, these companies must have a strong export bias. Still, accounting exports are often not representative of reality as there are many indirect exporting activities in this sector.

#### **Shareholders and ownership structure**

Many of the analyzed companies were still owned by their founders, whose personalities greatly influenced the companies character and cultural fit with Sonae Capital. Very complex structures, with diluted stakes may also difficult the deal.

#### **Headquarters**

Working conditions, location and capital expenditures can be linked to headquarters characteristics. If headquartered in a bad location, there may be plenty difficulties in hiring. Building degradation and quality is an important proxy for the company's culture and employee satisfaction and may evidence the need for capacity expansion, requiring future investments.

#### **Target Analysis Presentation**

All this privileged information was dissected in a presentation, enabling the team to further analyze the targets and once again present the summarized findings to the administration. At this point the number of targets was reduced to less than 10 and the team received approval to continue the work.

Moreover, some of the inquired shareholders revealed unavailability regarding a possible sale of their shares, further reducing the number of targets.

## **3.2 Non-Binding Offer**

As the name suggests, the purpose of the following tasks is the delivery of a Non-Binding offer. This offer gives the seller a price indication for their asset, allowing the shareholder to evaluate the potential sale of his shares.

This phase culminates in a detailed presentation for each target, the investment case, in which the following items are addressed and the non-binding offer is internally discussed, approved and sent to the target.

### **3.2.1 Non Disclosure Agreement**

The non disclosure agreement, written with the help of the legal department, is sent, upon agreement of the target, to each enterprise to assure both sides of proper handling of confidential information.

### **3.2.2 Request for Information**

As exposed above, this request intends to get the relevant information to perform a non binding offer. Given the size of the companies in scope, the team opted to ask for simple and few information that would not interfere too much with the day to day operations at the target companies.

- Annual Financial Reports from 2015 to 2017;
- Accounting Balance Sheet from prior quarter and homologous last year period ;
- Sales, discriminating product and unit number from 2015 to 2017;
- Sales and margins by product category and subcategories;
- Revenue % divided by the top 10 clients and project from 2015-2017;
- Top 10 suppliers on a cost basis from 2015-2017;
- Employees details, division per function, age, seniority, studies, experience and costs;
- Business plan;
- Commercial Presentation.

Furthermore, management must be prepared to meet and discuss other topics such as commercial strategy, partnerships, supply chain, software requirements, human resources, products warranty period and complains, quality certification, management KPI's, cost structure, balance sheet, capital expenditure needs, working capital and financing.

### **3.2.3 Valuation Model Construction**

As the previously requested information arrives, the team can start its analysis. At this point, there is a need to measure the company's value, establish a price, revisit the investment case and present the information to the administration.

The following section describes how the target's equity is valued with discounted cash-flows valuation, comprising a series of future scenarios that are built with inputs from the current management and shareholders of the target. These scenarios will comprise more conservative and optimistic outlooks that result in a valuation interval.

#### **Scenario Construction and modeling**

The principles of this valuation method were discussed in the literature review, therefore, this section will focus on scenario construction. A simplified version with fictional data is used as it is best for demonstration purposes.

To setup the base scenario, non recurring items are excluded, trimming the numbers to represent the operation with as reduced noise as possible. Then, it is possible to assemble a predictive model. The foreseeable period, first discussed in the literature review, is considered to be three years for the business under analysis. The process is described in the following paragraphs.

To illustrate an evaluation and the relevance of the available data, the financial statements of a fictional company are presented below, comprising the Profit and Losses Statement (Table 3.1), Balance Sheet Statement (Table 3.6) and Cash Flow Statement (Table 3.7). Other tables are also provided to illustrate relevant details (values with no indication are in million euro).

#### **Profits and Losses Statement**

The P&L Statement presented in Table 3.1 describes revenues and costs of the company, evidencing how the company has financially performed over the years and simulates the base case scenario for the future.



Table 3.1: P&amp;L Statement

P&L (M€)	2015	2016	2017	2018*	2019*	2020*
<b>Turnover</b>	<b>6.99</b>	<b>7.28</b>	<b>7.68</b>	<b>8.12</b>	<b>8.62</b>	<b>9.22</b>
<i>Growth</i>	-	4%	5%	6%	6%	7%
<b>Gross Margin</b>	<b>3.57</b>	<b>3.90</b>	<b>4.17</b>	<b>4.37</b>	<b>4.84</b>	<b>5.21</b>
<i>Gross Margin %</i>	51%	54%	54%	54%	56%	56%
External Supplies and Services	0.95	0.98	1.11	1.15	1.21	1.27
Employee Expenses	1.33	1.45	1.59	1.71	1.84	1.98
Other Operating Revenues	0.07	0.02	0.04	0.05	0.05	0.05
<b>EBITDA</b>	<b>1.29</b>	<b>1.47</b>	<b>1.47</b>	<b>1.50</b>	<b>1.80</b>	<b>1.96</b>
<i>Gross Margin %</i>	18%	20%	19%	19%	21%	21%
Depreciation	0.12	0.17	0.39	0.33	0.34	0.37
<b>EBIT</b>	<b>1.17</b>	<b>1.30</b>	<b>1.08</b>	<b>1.18</b>	<b>1.45</b>	<b>1.59</b>
Interest	0.15	0.23	0.17	0.12	0.08	0.06
Tax	0.23	0.24	0.20	0.24	0.31	0.35
<b>Earnings</b>	<b>0.79</b>	<b>0.83</b>	<b>0.70</b>	<b>0.82</b>	<b>1.06</b>	<b>1.19</b>

### Turnover

The top line of the income statement can be divided into many items, enabling the investor to build a scenario for a likely evolution of sales. After discussing the topic with the current management, one can divide it in the best possible way. It can be by product, geographies or clients. The example has its revenue divided into three streams, named Product A, B and C and across three possible scenarios, in accordance to table 3.2 and table 3.3, respectively.

Table 3.2: Total Sales Base Scenario

	2015	2016	2017	2018*	2019*	2020*
<b>Product A</b>	2.12	2.21	2.29	2.38	2.47	2.57
<b>Product B</b>	3.01	2.93	2.87	2.80	2.74	2.67
<b>Product C</b>	1.86	2.14	2.52	2.93	3.41	3.97
<i>Total</i>	6.99	7.28	7.68	8.12	8.62	9.22

The P&L Statement (Table 3.1) has the base scenario loaded. Each product has a compounded annual growth rate, calculated with the data from 2013 to 2015 as demonstrated in Table 3.3. The unused scenarios have different revenue compounded annual growth rates (CAGR), 20% lower and 20% higher than the base case, for every product, in the pessimist and optimist scenarios, respectively.

Table 3.3: CAGR Values for different Scenarios

	CAGR 15-17	Pessimist	Base	Optimist
<b>Product A</b>	3.9%	3.1%	3.9%	4.7%
<b>Product B</b>	-2.4%	-1.9%	-2.4%	-2.8%
<b>Product C</b>	16.4%	13.1%	16.4%	19.7%

### Gross Margin

Gross Margins are the result of subtracting the direct product costs to the revenue line. In this case, a margin is usually calculated as a function of sales. Still, extra costs with inventories of production change and own work capitalized must be taken into account. These will consume or provide resources, altering the true gross margin. Assuming these factors have been already reviewed, one can correlate the cost of goods sold with the direct material and labor requirements of the projected product mix above.

### External Supplies and Services

These services include subcontracts, specialized services, energy and fluids, transportation, travel and accommodation, rents, advertising and other miscellaneous services. They are modeled to vary in accordance to sales, keeping their historical proportion, assuming there is no better estimate provided by the investment case. Table 3.4 shows a simplified decomposition of these costs.

Table 3.4: Detailed expenses with Supplies and Services

	2015	2016	2017	2018	2019	2020
<b>Rent</b>	0.43	0.44	0.45	0.46	0.47	0.47
<b>Energy</b>	0.17	0.16	0.21	0.22	0.24	0.25
<b>Spec. Services</b>	0.35	0.38	0.45	0.48	0.51	0.54
<i>Total (M€)</i>	0.95	0.98	1.11	1.15	1.21	1.27

### Employee Expenses

This line summarizes all the expenses with employees that do not vary directly with production volumes. It includes remunerations, distribution of profits, after employment benefits, fiscal charges on remuneration, insurance, social security expenses, other expenses and employee training. All these costs can be split by employee number. The table below (Table 3.5) presents some more details concerning employees. It shows their evolution as a function of sales and also as a mirror of the strategic plan. Total remunerations increase at an inflation rate of 2% per year and in accordance with the employee number. Profit distribution is correlated with the company's earnings at around 10% and training expenses evolve accordingly with the strategic plan.

Table 3.5: Employee Expenses

	2015	2016	2017	2018	2019	2020
<b>Employee Number</b>	72	77	84	88	92	97
<b>Remunerations</b>	1,224,000 €	1,335,180 €	1,485,691 €	1,587,567 €	1,692,924 €	1,820,629 €
<b>Profit Dist</b>	173,600 €	185,333 €	186,979 €	246,153 €	275,865 €	307,941 €
<b>Training</b>	28,800 €	33,110 €	36,960 €	38,720 €	40,480 €	42,680 €
<i>Total (M€)</i>	1.43	1.55	1.71	1.87	2.01	2.17

### Depreciation

Depreciation is an accounting method that allows for deducting the cost of fixed assets over time

and use. It results in a discount to the taxable earnings and therefore a discount in tax. They are projected to the future based on their historical ratio, as shown on the P&L Statement (Table 3.1).

### Interest and Taxes

Interest depends on the cost of debt that the company has been able to negotiate and the amount of debt it has. Taxes, on a simplified version of intricate regulatory rules, are payed as a percentage of EBIT after interest, at around 21%. This means that the interest payment will reduce the taxable amount. This is also why cost of debt is deducted from tax:

$$DebtCost = InterestExpense(1 - TaxRate) \quad (3.1)$$

### Balance Sheet Statement

The Balance Sheet provides a stationary picture of the company financial status. The presented Balance Sheet (Table 3.6) is set up in a condensed and practical fashion that facilitates valuation activities.

Table 3.6: Balance Sheet Statement

Balance Sheet (M€)	2015	2016	2017	2018*	2019*	2020*
<b>Working Capital</b>	<b>0.84</b>	<b>0.95</b>	<b>0.80</b>	<b>0.82</b>	<b>0.87</b>	<b>0.93</b>
Inventories	0.44	0.47	0.33	0.49	0.52	0.55
Accounts Receivable	1.17	1.28	1.38	1.33	1.42	1.52
Accounts Payable	0.77	0.80	0.91	1.00	1.06	1.14
<b>Fixed Tangible Assets</b>	<b>5.12</b>	<b>5.20</b>	<b>5.25</b>	<b>6.83</b>	<b>7.16</b>	<b>8.03</b>
Buildings	1.61	1.61	1.61	1.61	1.61	2.10
Machinery	3.51	3.59	3.64	5.22	5.55	5.93
Transport	0.22	0.44	0.41	0.43	0.45	0.47
Others	0.03	0.02	0.05	0.05	0.06	0.06
<b>Intangible Assets</b>	<b>0.14</b>	<b>0.16</b>	<b>0.23</b>	<b>0.26</b>	<b>0.26</b>	<b>0.27</b>
Patents	0.10	0.09	0.08	0.10	0.10	0.10
Software	0.04	0.07	0.15	0.16	0.16	0.17
<b>Net Debt</b>	<b>4.73</b>	<b>3.94</b>	<b>2.82</b>	<b>3.29</b>	<b>2.27</b>	<b>1.66</b>
EBITDA X	3.7X	2.7X	1.9X	2.2X	1.3X	0.8X
<b>Equity</b>	<b>1.37</b>	<b>2.20</b>	<b>2.90</b>	<b>3.73</b>	<b>4.79</b>	<b>5.98</b>

### Working Capital

Working Capital is the difference between Current Assets and Current Liabilities. Current Assets include inventories, clients, state and other receivables and prepayments to suppliers. Liabilities comprise suppliers, state and other payables and prepayments from Clients. Cash and Short-term Debt are only considered in the Net Debt line. As this metric grows, it means that the company needs more and more cash to fuel its operations because the cash is accumulated in inventories, or differences in accounts receivable and payable. This can lead to an extreme scenario where no matter how much the company grows, its earnings need to be continuously invested in working capital, not generating any cash free of those obligations. If on the other hand the company is able to lower the percentage of cash tied up in working capital in a year over year scenario, it will

always be generating extra free cash flow from its top line growth.

### Fixed Tangible Assets

These are the assets that exist in a physical form and are necessary to run the business over the long term. Fixed Tangible assets include equipment such as machinery, buildings and land. If there is a projected high investment in machinery in the future, such an investment would need to be stated in the investment case, as it happens on this example. Note that year 2018 has a higher value for machinery.

### Intangible Assets

Opposite to the Fixed Tangible Assets, these assets do not take a physical form, consisting mainly of intellectual property, such as patents and development projects, trademarks and goodwill from previous acquisitions.

### Equity

The equity is the value of the business assets after subtracting all the business liabilities. Its usual form is  $\text{Equity} + \text{Liabilities} = \text{Assets}$ . Here, the structure is oriented towards company valuation,  $\text{Working Capital} + \text{Assets} = \text{Net Debt} + \text{Equity}$ . Working Capital is here considered as necessary to run the business just as any other productive asset, thus, the balance sheet is slightly tuned in order to evidence that philosophy.

### Cash Flow Statement

Table 3.7 presents a Cash Flow Statement that identifies the Net Debt needs of the company from year to year, based on the projected financial performance and capital requirements previously calculated and identified.

Table 3.7: Cash Flow Statement

Cashflow (M€)	2015	2016	2017	2018*	2019*	2020*
<b>EBIT</b>	<b>1.17</b>	<b>1.30</b>	<b>1.08</b>	<b>1.18</b>	<b>1.45</b>	<b>1.59</b>
Depreciation	0.12	0.17	0.39	0.33	0.34	0.37
Tax	0.23	0.24	0.20	0.24	0.31	0.35
Working Capital Inv.	-	0.11	-0.15	0.02	0.05	0.06
<b>Operating Free Cash Flow</b>		<b>1.12</b>	<b>1.41</b>	<b>1.24</b>	<b>1.44</b>	<b>1.55</b>
Capex	-	0.10	0.12	1.61	0.33	0.88
<b>Free Cash Flow to Firm</b>		<b>1.02</b>	<b>1.29</b>	<b>-0.36</b>	<b>1.10</b>	<b>0.67</b>
<i>EBITDA %</i>		69%	88%	-24%	61%	34%
Interest	0.15	0.23	0.17	0.12	0.08	0.06
<b>Net Debt</b>	<b>4.73</b>	<b>3.94</b>	<b>2.82</b>	<b>3.29</b>	<b>2.27</b>	<b>1.66</b>

### Operating Free Cash Flow

This line assesses the cash flow from the company's operations. It begins with EBIT, depreciations are summed, as they are not materialized in any cash flow, and tax expenses and investments in

non cash working capital are deducted.

### Capital Expenditures

Capital Expenditures (CAPEX) is an important and perhaps overlooked expenditure. It represents the funds used by a company to acquire, upgrade and maintain physical assets such as property, industrial buildings or equipment. It can also comprise Intangible Assets as it would be the example of a company that has invested its resources in producing a software that is expected to generate profits in the future. There is an important difference in these type of expenses as some might be costs for keeping the business running while others are investments, with expected returns.

### Free Cash Flow to Firm

This is the ultimate value that better translates a firm's ability to generate cash from their operations, on a continuous regime, therefore including CAPEX. This is the value that will later be used to calculate Enterprise and Equity Values.

### Net Debt

Net debt changes with the company's cash requirements. The level reduces as the company is able to generate positive Free Cash Flow. This scenario does not account for capital increases, therefore, the net debt absorbs all needed investments. This metric is useful to assess the riskiness of the business by comparing it to EBITDA.

### Terminal Value

The terminal value will derive from the Free Cash Flow generated in the last foreseeable period. In light of this, all non recurring investments have to be deducted to perform such calculation. In the example there is an investment in buildings of 0.5M€ that is not recurrent and must be removed to calculate terminal value. It impacts the CAPEX that is consequently reduced to 0.39M€ and Free Cash Flow to firm that improves to 1.16M€.

Table 3.8 illustrates calculations, arriving to Firm's Value using the following assumptions.

Risk Free Rate= 3%

WACC= 11%

Future Growth Rate= 3%

Table 3.8: Calculation of Firm's Value

	2018*	2019*	2020*	TV
<b>Free Cash Flow to Firm</b>	-0.36	1.10	0.67	1.2
Discount Rate	1.11	1.23	1.37	1.37
Discounted Value	-0.33	0.90	0.49	10.95
<b>Firm's Value</b>	<b>12.01</b>			

Note that the majority of the company's calculated value comes from the terminal value. It is therefore crucial to be cautious when calculating the WACC and projecting the future growth rate.

To calculate the Equity value, the Net Debt must be deducted from the Enterprise Value. Table 3.9 demonstrates how this valuation would change, depending on the three defined scenarios.

Table 3.9: Equity Value Sensitivity

	Pessimist	Base	Optimist
<b>Enterprise Value</b>	10.68	12.01	13.38
<b>Equity Value</b>	7.87	9.20	10.57

The calculated equity value ranges between €7.87M and €10.57M, depending on the valuation scenario that is considered.

With the valuation analysis completion, an initial deal strategy is created and translated to the non binding offer.

### 3.2.4 Non Binding Offer

The non binding offer is commonly structured into the following topics:

- Transaction Rational;
- Transaction Perimeter;
- Acquisition price and terms of payment;
- Methodology for valuation an key assumptions;
- Preconditions;
- Internal and Regulatory approvals;
- Due Diligence;
- Confidentiality.

After initial negotiation periods and pending on the target company shareholders approval, this stage is complete and the acquiring firm can initiate the due diligence phase.

## 3.3 Due Diligences and Binding Offer

At this stage, one ore more third party entities are hired to perform due diligence over key business areas of the selected targets. Financial, fiscal and legal due diligence are crucial, however, depending on the company and sector, it is also common to perform a technical and commercial due diligence. These will validate previously received information and investigate potential problems in the covered areas, ensuring the buyer that there are no hidden risks.

- **Financial and Fiscal Due Diligence**

There is the need to audit the financial statements issued by the company, verifying their truth. Errors in revenues, cost structure and balance sheet items can easily distort results. Moreover, there can be manipulation and lack of impairment losses registry.

- **Legal Due Diligence**

There can be problems with various contracts, ongoing litigations, facilities safety requirements and others.

Findings from the due diligences are very relevant to future negotiations as these will reveal extra risks. Legal risks are often treated as preceding conditions for deal making as the holding company might reject to be subject to them. Other risks are also individually analyzed and their impact in the enterprise value is measured.

### **3.3.1 Binding offer**

The binding offer comes after the due diligence findings and extra negotiations. At this point, the findings from due diligence have potentially impacted the offer given that they primarily concern risks and non conformities identification.

The document structure is often very similar to the non binding offer. In smaller transactions, with less bureaucratic requirements, this phase can be condensed in the Sale and Purchase Agreement, simplifying the process and accelerating the deal.

## **3.4 Legal Agreements**

Legal Agreements represent a crucial part in the acquisition of privately held businesses. Their clauses state the deal terms and can help navigate further negotiations to a closing while also protecting both sides of the transaction. Yet, when clauses are not clearly stated, harmful and unexpected issues can affect an apparently safe deal.

### **3.4.1 Sale and Purchase Agreement**

The sale and purchase agreement states the accord between the acquiring company and previous shareholders in which the company, as a separate legal entity, is acquired, comprising all of its assets and liabilities. Its main subjects are the definition, conditions and pricing regarding the transaction. The proceeding paragraphs provide additional insight for those topics by covering deal structure, valuation gaps, conditional clauses and possible solutions for dealing with eventual delays.



### Deal Structure

The deal can be creatively structured to suit the seller as well as the buyer needs. This section focuses on three alternatives, comprising share purchase, capital investment and a mixed structure.

- **Share Purchase**

This method simply consists on the purchase of shares from the previous investors. It can be a simple transaction if the payment is made in cash. However it immediately creates a tax liability for the seller. The ownership percentage is calculated below:

$$Share\% = \frac{Investment}{EquityValue} \quad (3.2)$$

- **Capital Increase**

Under this method, the investing company increases the capital of the target company, diluting its shares. It is particularly useful for reducing debt, therefore increasing the equity value. Furthermore, previous shareholders are not subject to any tax liability. The ownership percentage is calculated below:

$$Share\% = \frac{Investment}{EquityValue + Investment} \quad (3.3)$$

- **Mixed**

A mixed approach can also be considered, where part of the deal is made through share purchase and the rest with capital increase. The ownership percentage is calculated below:

$$Investment = SharePurchase + CapitalIncrease \quad (3.4)$$

$$Share\% = \frac{Investment}{EquityValue + CapitalIncrease} \quad (3.5)$$

Where:

Share% = Ownership Percentage after deal

EquityValue = Calculated Equity value before Capital Increase

### Valuation Gap

Once the deal structure is settled, the most obvious constrain is an eventual valuation gap between buyer and seller. This challenge can be softened with the use of valuation bridging mechanisms, facilitating and accelerating the deal completion. These may include the following:



- **Earn-outs**

Earn-outs are deferred adjustments to pricing depending on future profits or other performance criteria. They act as a management incentive tool and confer to the deal a reduction of risk as part of the payment is dependent on future performance. It is key to state periods, metrics and limits to these type of adjustments.

- **Anti-embarrassment clauses**

As the name suggests, anti-embarrassment clauses can protect the seller towards some activities. It is common to protect against re-selling or listing at a premium for short to medium term period.

- **Seller financing**

Seller financing will increase the return on a sale process if the seller is able to finance the buyer.

- **Escrow**

The escrow is a guarantee, placed under the custody of a third party, that will provide confidence if there are any claims under the Sale and Purchase Agreement (SPA) that need contractual adjustments or settlements after the acquisition.

### **Conditionals**

Once pricing divergences are settled, there will still exist unresolved issues that need to be solved. For this reason, the SPA and deal completion do not typically occur at the same time. The preceding conditions have to be met before the deal is closed, thus extra time is necessary. This translates into risks for both buyer and seller.

Antitrust and regulatory approvals are common mandatory conditionals. At the same time, internal approval of the deal, legal issues resolution and financial contractual approvals represent other non mandatory but still widely used clauses.

The following items represent some of the risks that may arise during the time gap created by the conditional clauses:

- Any negotiation delays will increase exposure to business risk. At the same time, the seller runs the risk of deal abortion if conditions are not satisfied;
- There is the risk that the seller might not run the business with a competent conduct;
- Management might be unsatisfied by the acquisition and try to break the deal. This can be partially offset by deal-breakup fees.

### **Locked Box vs Completion Accounts**

Alongside the previously identified risks, there may occur business or market changes, resulting in different valuations at SPA versus actual deal completion time. These two approaches suggest opposite alternatives to deal with these problems beforehand.

Locked box proposes to fix the price by referencing to the balance sheet at the signing date. This will pass economic risks to the buyer as any potential economic slide will not affect the company valuation. Interest accrued during the negotiation and completion time must be paid to the seller. The seller still requires an audit to the financial statements and indemnities in respect of leakages in the balance sheet.

To illustrate the above, a situation is considered in which the seller issues a balance sheet guarantee at the time of sale. If after the acquisition, the acquired company receives an invoice corresponding to the period prior to the acquisition, and this liability was not yet registered in the balance sheet, the seller must reimburse the buyer.

The completion accounts method does not lock the price at the SPA date. Instead, the price is adjusted by reference to the company's financial position at the date of completion. Given the above, the enterprise value will change as a result of variations in working capital, net debt and other metrics. This reduces the level of uncertainty for the buyer and confers the management more flexibility to run the company during the time gap.

The typical structure of the Sale and Purchase Agreement used by Sonae Capital is presented below:

- Considerations;
- Definitions;
- Description of the asset under transaction;
- Preceding conditions and conclusion;
- Acquisition price and terms of payment;
- Warranties and Indemnities;
- Non-compliance and Complains;
- Post-Completion Obligations;
- Confidentiality;
- Applicable Law;
- Notifications;
- Other issues.

Given that the concept of warranties and indemnities can be easily mixed, their definitions are stated below.

- Warranties: a warranty is a statement regarding the company status at the signing moment. If the buyer is able to recognize a breach in the values provided by the target, the value of the target company is reduced.
- Indemnities: an Indemnity is a promise of reimbursement by the seller regarding a potential loss that has not yet been recognized. This is particularly useful when the buyer is aware of a particular issue that has financial impact. Instead of negotiating the price to accommodate for the extra risk, the seller can assume it himself.

These two items must be accompanied by both time and monetary limits. Time limits for the warranty and indemnity must be set as timings for payment. Regarding monetary limits, they can exist at an aggregate and individual level.

### **3.4.2 Shareholders Agreement**

The Shareholders agreement differs from the above, as it focus on shareholder rights, their structure and the society governance. Additionally, some clauses may be added to protect minority stake shareholders, such as a put option, giving minority stake shareholders the right to sell his shares, with no obligations. At the same time, a call option, right to purchase shares from the other shareholders, can also be previously negotiated. The typical structure is found below:

- Considerations;
- Corporate Entities;
- Corporate Entities;
- Board of directors' resolutions;
- Issues reserved for Board of Directors and General Meeting;
- Exclusivity and non-competition;
- Call and Put options;
- Share transmission rules;
- Non-compliance;
- Confidentiality;
- Applicable Law;
- Notifications;
- Other issues.

### **3.5 Transaction Closing**

Once the SPA and SHA negotiations are settled, a communication must be issued to the regulatory agency. At that point, the conditional clauses are still being settled, possibly delaying or even preventing the transaction.

### **3.6 Post Merger Integration and Contract Management**

Many private equity funds do not get involved with management. Their gain relies on capital appreciation through the execution of an exit strategy rather than generating an income stream as it is Sonae Capital' objective. Given the companies closeness to the target operations and strategic guidance, there is the need to develop an integration plan. At Sonae Capital, the most important integration task is to secure the integration of shared corporate functions. This plan includes a strategy to centralize financial services, legal department, IT systems, continuous improvement initiatives, internal audit, management planning and control and human resources' functions. There is also the need to review any investment need for the short to medium term that may impact the free cash flow of the target. These can be investments in buildings, machinery, systems or even human resources.

Integration preparations usually begins in the due diligence phase. Findings are crucial for guiding this process as they present the largest integration risks and consequently need to be managed accordingly. Employees of every internal department are assigned to be responsible for handling both their department integration as well as overseeing findings from due diligence. The role of the portfolio development team is pivotal in this process, given their knowledge of the target company, their familiarity with employees and overall awareness of ongoing processes. When corporate functions are migrating to the shared services over at Sonae Capital, members of the portfolio development facilitate communications and link the relevant people together. The team also receives guidance and provides oversight for the administration by presenting the status of various integration tasks, risk assessment and validation of milestones. Other integration affairs that are not attributable to any of the teams remain within the portfolio development department.

## **Chapter 4**

# **Conclusions and Future Work**

The framework for business acquisition has been found to be very specific to Sonae Capital' needs and business structure. That is an optimal outcome for the internal team, yet, it presents a challenge to this paper. As a result of its specificity, the second and third chapter are presented with a looser structure, disconnected from the rigidity of the framework. This has been found to be important to provide additional insight for the reasoning, valuation, macro factors and even the history behind acquisitions, as well as a flexible processes structure, inspiring the reorganization of M&A teams that need to simultaneously deal with a large pipeline of potential targets.

Techniques for equity valuing have also been described, emphasizing the discounted cash-flows method, largely based on Investment Valuation by Damodaran (1995). This hopefully dismantles the notion of a straight forward calculation by exposing how it heavily relies on risk assessment, synergistic potential with acquiring firm, risk free yields and other factors that severely affect valuation.

In addition, the dissertation demonstrates the need for knowledge across various fields as the target's business, legal proceedings, financial statements analysis and deal negotiations. This can only be achieved by a multidisciplinary team.

Focusing on the future and with an effort to continuously improve the work-flow at the M&A department, the framework is now being replicated to Midaxo, an online platform that has been specially designed for Merger & Acquisition. This will allow quicker and easier management of the pipeline, proving a common dashboard for managing every project. The team is also excited to keep on moving forward on ongoing deals, further standardizing their work with the introduction of semi-standard documents for financial overview, sector analysis and business case presentations. In a mid-term time horizon, the focus will shift to the integration process as it becomes the priority for materializing value.



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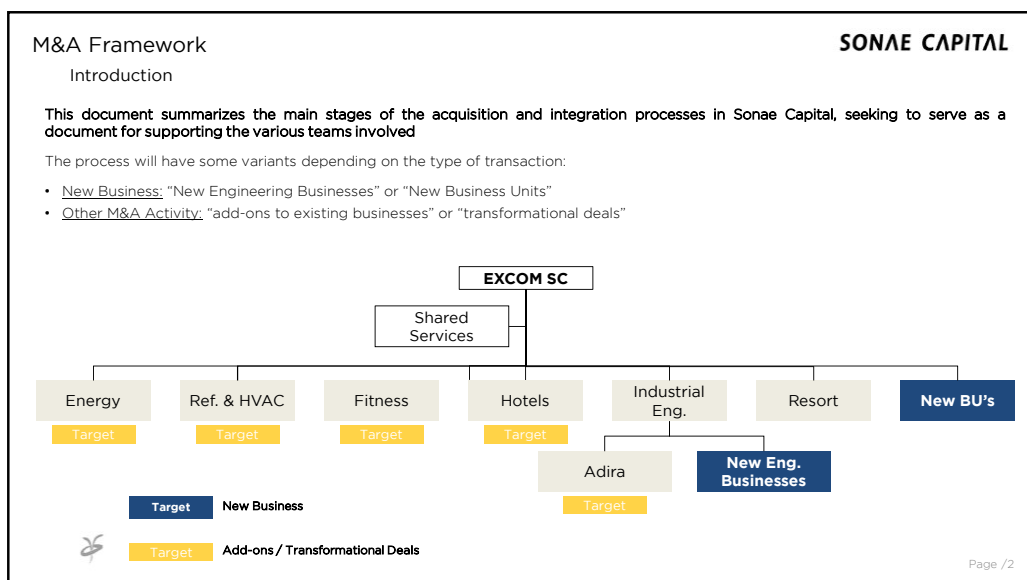
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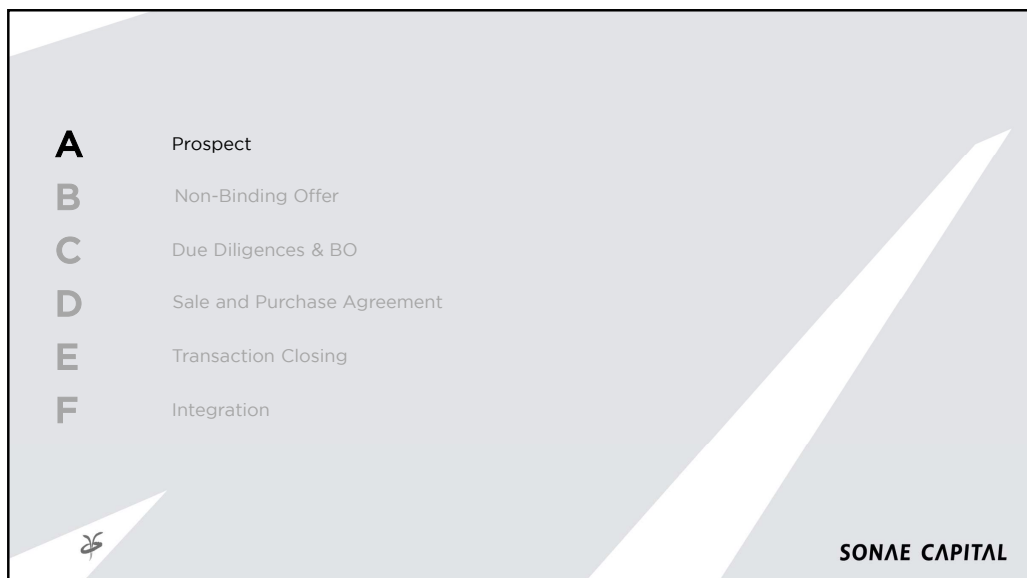
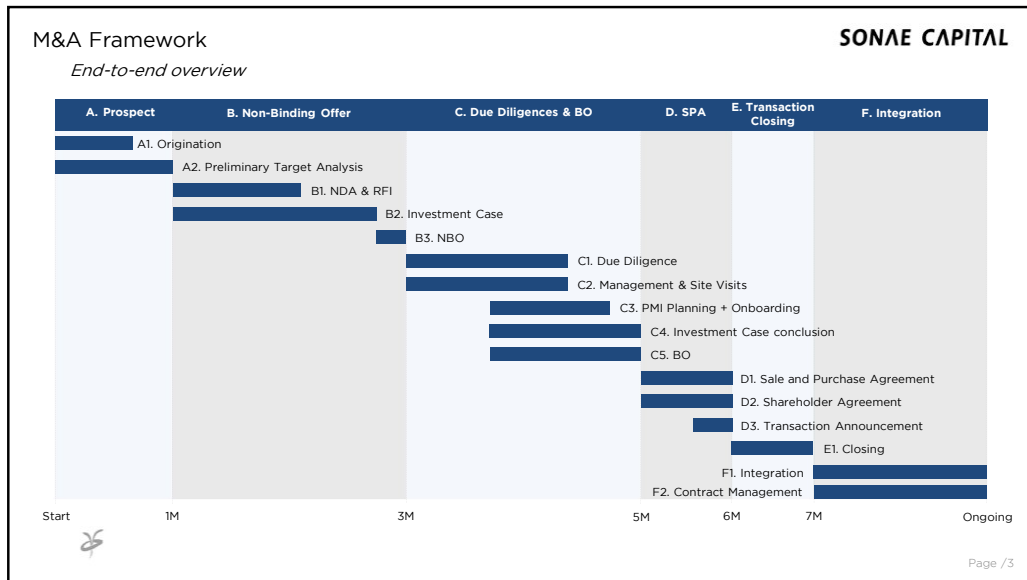
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## **Appendix A**

# **M&A Framework**





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M&A Framework

### A1 Origination

<b>Precedents</b> N/A	<b>Main Tasks</b> Task                      Risks and Notes	
<b>Overview</b> Business research, fitting into Sonae Capital's long-term strategy	<b>1. M&amp;A Strategy Definition</b>	<b>Possible Deal Strategies:</b> <ul style="list-style-type: none"> <li>New Business (ex.: Industrial Automation)</li> <li>Add-ons to existing businesses (ex.: fitness)</li> <li>Transformational Deals (ex: vertical integration)</li> </ul>
	<b>2. Dealflow Sources Research</b>	<b>Dealflow Sources</b> <ul style="list-style-type: none"> <li>Investment Banks and Other Intermediaries (Brokers)</li> <li>Internal networking (Administration, COOs, Business Developers, Portfolio Development, etc)</li> <li>Private Equities / Investment Funds</li> <li>SABI: research by CAE and activity description</li> <li>Business fairs and sectoral events</li> <li>Sectoral affiliations</li> <li>News</li> </ul>
	<b>3. Targets Identification</b>	<ul style="list-style-type: none"> <li>Selection of companies for preliminary analysis</li> </ul>
<b>Relevant Teams</b> PD / M&A Team COO / Business Units Administration Senior Management		

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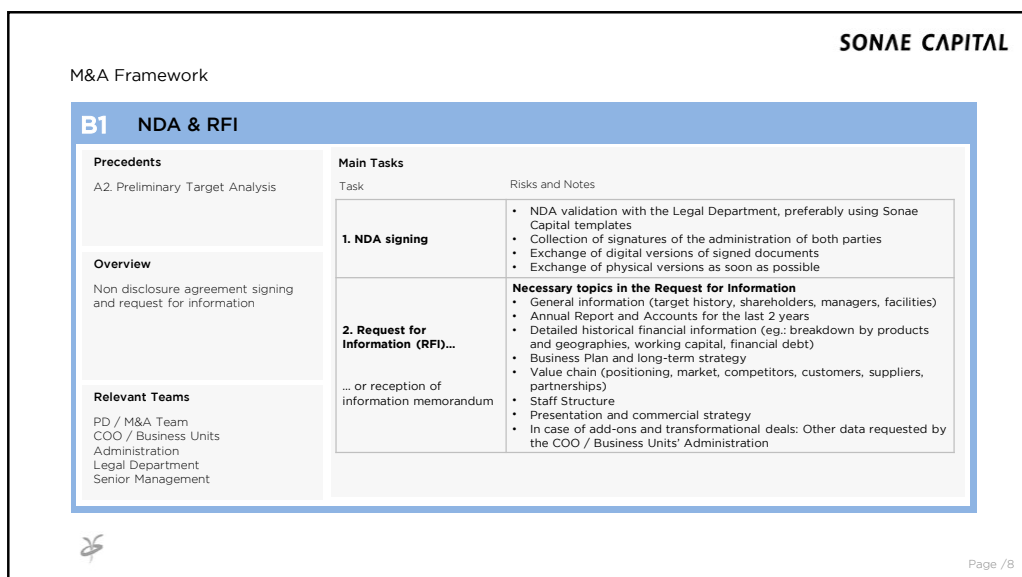
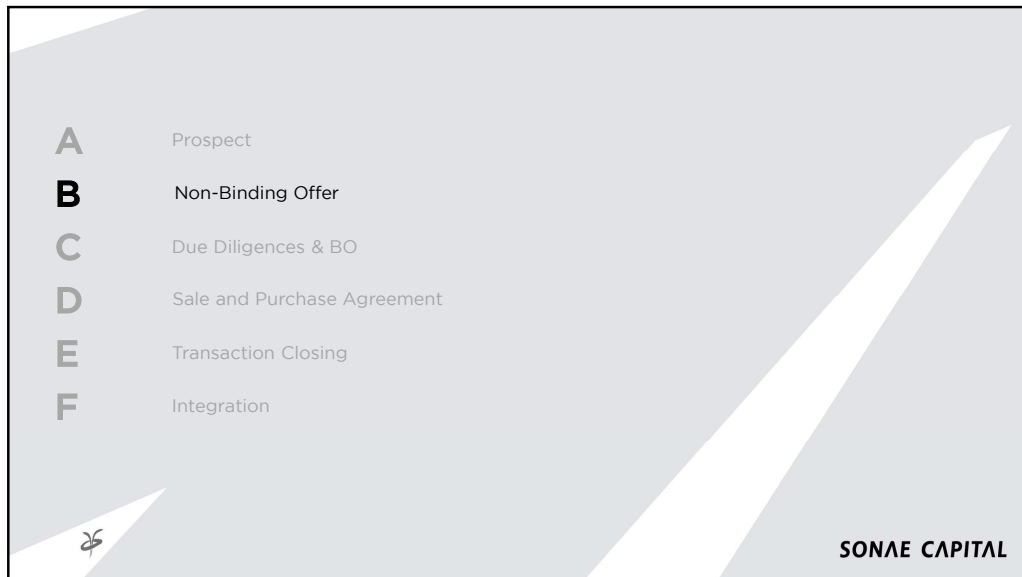
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M&A Framework

### A2 Preliminary Target Analysis

<b>Precedents</b> A1	<b>Main Tasks</b> Task                      Risks and Notes	
<b>Overview</b> Initial target analysis, based on publicly available information	<b>1. Target' additional information collection</b>	<b>Information Sources:</b> <ul style="list-style-type: none"> <li>LinkedIn (enterprise and administration)</li> <li>News</li> <li>SABI</li> <li>Teaser (in case of organized sales process)</li> <li>Other organizations (affiliations, innovation centers)</li> </ul>
	<b>2. Sector Overview</b>	<b>Required data (in the case of new deals or transformational deals)</b> <ul style="list-style-type: none"> <li>Main subsectors and sector trends</li> <li>Main players' products and services portfolio</li> <li>National and international peers</li> </ul>
	<b>2. Creation of Target Profile</b>	<b>The Target Profile must state:</b> <ul style="list-style-type: none"> <li>Generic data: year of creation, headcount, facilities</li> <li>Product lines and end markets</li> <li>Financials overview (Sabi)</li> <li>Shareholder structure</li> <li>If possible: management profile, recent news about the company</li> </ul>
	<b>3. M&amp;A Process Set-up</b>	<ul style="list-style-type: none"> <li>Target validation by the board (with the Business COO in the case of add-ons or transformational deals)</li> <li>Create and fill cover page of new project in Midaxo</li> </ul>
<b>Relevant Teams</b> PD / M&A Team COO / Business Units Administration Senior Management		

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**SONAE CAPITAL**

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**B2 Investment Case**

<p><b>Precedents</b> B1. NDA &amp; RFI</p> <p><b>Overview</b> In-depth target analysis, based on received confidential information</p> <p>Construction of financial scenarios and valuation model for the Target</p> <p><b>Relevant Teams</b> PD / M&amp;A Team COO / Business Units Administration Senior Management</p>	<p><b>Main Tasks</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Task</th> <th>Risks and Notes</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top; padding: 5px;"> <p><b>1. Investment Case Draft</b></p> <p>In the case of a transformational add-on / deal, the Business COO is responsible for the Investment Case</p> </td> <td style="vertical-align: top; padding: 5px;"> <p><b>Investment Case topics:</b></p> <ul style="list-style-type: none"> <li>Executive summary</li> <li>Transaction Rationale</li> <li>Sectoral analysis (depending on the degree of pre-existing knowledge)</li> <li>Company overview: timeline; product lines; value chain; organization of staff; headquarters; assets not allocated; other relevant aspects)</li> <li>Analysis of historical financial information (NLP, Balance Sheet, Cashflow)</li> <li>Sector comparison (VN, EBITDA margin, working capital, CAPEX, FCF, financial debt)</li> <li>Financial evolution scenarios (conceptual description of the scenarios, financial statements)</li> <li>Evaluation of possible levers for value creation</li> <li>Assessment of considered scenarios</li> <li>Recommendation and next steps: proposed price; positive and negative aspects of the target; transaction risks; information to be validated / clarified at later stages</li> </ul> </td> </tr> <tr> <td style="vertical-align: top; padding: 5px;"> <p><b>2. Internal Validation</b></p> </td> <td style="vertical-align: top; padding: 5px;"> <ul style="list-style-type: none"> <li>Board / Executive Commission validation</li> </ul> </td> </tr> </tbody> </table>	Task	Risks and Notes	<p><b>1. Investment Case Draft</b></p> <p>In the case of a transformational add-on / deal, the Business COO is responsible for the Investment Case</p>	<p><b>Investment Case topics:</b></p> <ul style="list-style-type: none"> <li>Executive summary</li> <li>Transaction Rationale</li> <li>Sectoral analysis (depending on the degree of pre-existing knowledge)</li> <li>Company overview: timeline; product lines; value chain; organization of staff; headquarters; assets not allocated; other relevant aspects)</li> <li>Analysis of historical financial information (NLP, Balance Sheet, Cashflow)</li> <li>Sector comparison (VN, EBITDA margin, working capital, CAPEX, FCF, financial debt)</li> <li>Financial evolution scenarios (conceptual description of the scenarios, financial statements)</li> <li>Evaluation of possible levers for value creation</li> <li>Assessment of considered scenarios</li> <li>Recommendation and next steps: proposed price; positive and negative aspects of the target; transaction risks; information to be validated / clarified at later stages</li> </ul>	<p><b>2. Internal Validation</b></p>	<ul style="list-style-type: none"> <li>Board / Executive Commission validation</li> </ul>
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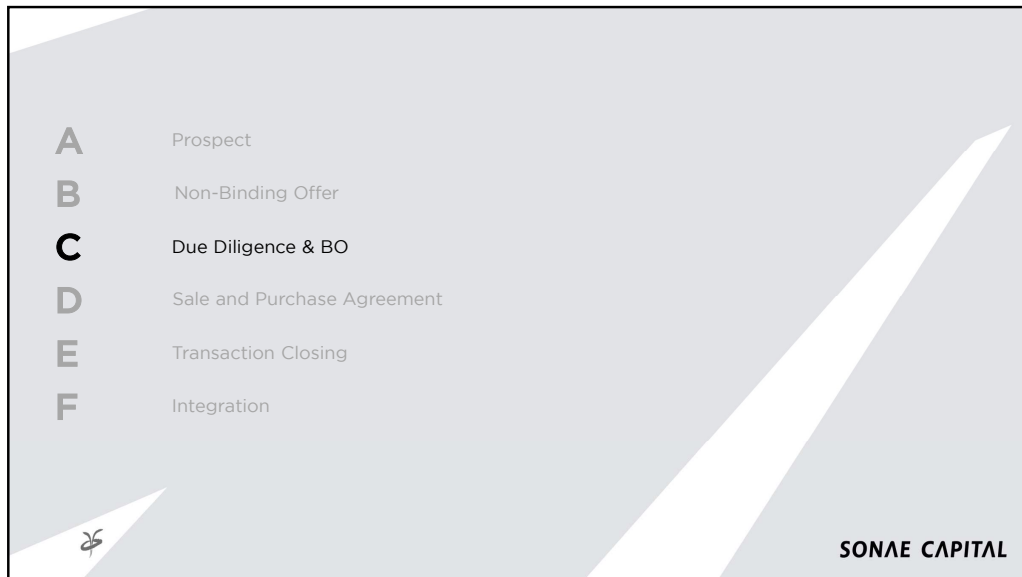
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**B3 NBO**

<p><b>Precedents</b> B2. Investment Case</p> <p><b>Overview</b> Creation and legal validation of non binding offer (NBO)</p> <p>Submission of the proposal after signature collection process</p> <p><b>Relevant Teams</b> PD / M&amp;A Team COO / Business Units Administration Legal Department Senior Management</p>	<p><b>Main Tasks</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Task</th> <th>Risks and Notes</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top; padding: 5px;"> <p><b>1. NBO Draft</b></p> </td> <td style="vertical-align: top; padding: 5px;"> <p><b>Main subjects:</b></p> <ul style="list-style-type: none"> <li>Proposal context</li> <li>Description of Sonae Capital, including transaction history (if relevant)</li> <li>Transaction Rationale</li> <li>Perimeter of the transaction</li> <li>Acquisition price and payment terms</li> <li>Evaluation methodology and key assumptions</li> <li>Additional conditions of the proposal: meetings with management team; execution of Due Diligence; conclusion of SPA and other relevant contracts</li> <li>Required internal and regulatory approvals</li> <li>Due Diligence Scope, Requirements and Schedule</li> <li>Confidentiality and Validity of NBO</li> <li>Contacts</li> </ul> </td> </tr> <tr> <td style="vertical-align: top; padding: 5px;"> <p><b>2. Legal Validation</b></p> </td> <td style="vertical-align: top; padding: 5px;"> <ul style="list-style-type: none"> <li>NBO validation with the Legal Department</li> </ul> </td> </tr> <tr> <td style="vertical-align: top; padding: 5px;"> <p><b>3. Signature collection and NBO dispatchment</b></p> </td> <td style="vertical-align: top; padding: 5px;"> <ul style="list-style-type: none"> <li>Signatures collection</li> <li>NBO submission (in digital format and physical format)</li> <li>Update the project status in Midaxo</li> </ul> </td> </tr> </tbody> </table>	Task	Risks and Notes	<p><b>1. NBO Draft</b></p>	<p><b>Main subjects:</b></p> <ul style="list-style-type: none"> <li>Proposal context</li> <li>Description of Sonae Capital, including transaction history (if relevant)</li> <li>Transaction Rationale</li> <li>Perimeter of the transaction</li> <li>Acquisition price and payment terms</li> <li>Evaluation methodology and key assumptions</li> <li>Additional conditions of the proposal: meetings with management team; execution of Due Diligence; conclusion of SPA and other relevant contracts</li> <li>Required internal and regulatory approvals</li> <li>Due Diligence Scope, Requirements and Schedule</li> <li>Confidentiality and Validity of NBO</li> <li>Contacts</li> </ul>	<p><b>2. Legal Validation</b></p>	<ul style="list-style-type: none"> <li>NBO validation with the Legal Department</li> </ul>	<p><b>3. Signature collection and NBO dispatchment</b></p>	<ul style="list-style-type: none"> <li>Signatures collection</li> <li>NBO submission (in digital format and physical format)</li> <li>Update the project status in Midaxo</li> </ul>
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SONAE CAPITAL

M&A Framework

C1 Due Diligence (DD)

Precedents

B3. NBO

Overview

Verification of preliminary information and identification of liabilities, risks and contingencies that may impact the company's valuation

Relevant Teams

PD / M&A Team  
COO / Business Units  
Administration  
Legal Department  
Serviços financeiros  
External Consultants

Main Tasks

Task

Risks and Notes

1. Virtual Data Room (VDR)

- Target information repository subscription: this service may be hired by the seller (preferably) or by Sonae Capital (if necessary)
- Alternatives: Merrill Datasite; Intralinks; Others (Dropbox, OneDrive)

2. Required DDs

- Mandatory DD's: DD Financial, Fiscal; Legal; Labor
- There may be a need to perform DDs to other areas (eg.: Commercial DD, Strategic DD, Technical DD), depending on the internal know-how

3. DDs Management

DD necessary steps

- Identification of the internal pivot (ex: Fiscal Department for Fiscal DD, etc.)
- Consultancy firm hiring (or decision to perform DD with internal resources)
- Listing of required information
- DD process management (PD / M & A in coordination with pivots)
- Validation and analysis of the reports and systematization of the main conclusions

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### C2 Management & Site Visits

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**Overview**

Validation of key directors and administrators (Target staff)

Visit to Target's headquarters for Business Plan validation and Capex needs identification

**Relevant Teams**

PD / M&A Team  
COO / Business Units Administration  
Senior Management  
Shared Services  
External Consultants

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**SONAE CAPITAL**

M&A Framework

### C3 PMI Planning + Onboarding

<p><b>Precedents</b></p> <p>C2. Management &amp; Site Visits</p>	<p><b>Main Tasks</b></p> <table border="1"> <thead> <tr> <th>Task</th> <th>Risks and Notes</th> </tr> </thead> <tbody> <tr> <td> <p><b>Acquisition and Integration Processes Planning</b></p> <ul style="list-style-type: none"> <li>• Business Unit</li> <li>• Financial Services</li> <li>• Legal Department</li> <li>• IT</li> <li>• IOW</li> <li>• Auditing</li> <li>• Management Control</li> <li>• HR</li> </ul> </td> <td> <p><b>Validation of the acquisition strategic rational</b></p> <ul style="list-style-type: none"> <li>• The acquisition should fit with Sonae Capital's deal strategy and be compatible with the Group's management, governance and culture.</li> </ul> <p><b>Identification of the target processes subject to integration</b></p> <ul style="list-style-type: none"> <li>• Based on the information available, DD's conclusions and interviews</li> </ul> <p><b>Estimating capex / opex requirements</b></p> <ul style="list-style-type: none"> <li>• Ex.: offices expansion, upgrade of IT systems (eg, ERP), quality certifications, other investments</li> </ul> <p><b>Identification of potential capital gains from integration</b></p> <ul style="list-style-type: none"> <li>• Synergies (i) technical, (ii) commercial, (iii) operational or (iv) financial, depending on the target and type of transaction</li> </ul> <p><b>Elaboration of the Acquisition and Integration Plan</b></p> <ul style="list-style-type: none"> <li>• Plan should respect the New Business Acquisition and Integration Framework, and should be validated by Senior Management</li> <li>• Introduction to the Midaxo Platform for future monitoring</li> </ul> </td> </tr> </tbody> </table>	Task	Risks and Notes	<p><b>Acquisition and Integration Processes Planning</b></p> <ul style="list-style-type: none"> <li>• Business Unit</li> <li>• Financial Services</li> <li>• Legal Department</li> <li>• IT</li> <li>• IOW</li> <li>• Auditing</li> <li>• Management Control</li> <li>• HR</li> </ul>	<p><b>Validation of the acquisition strategic rational</b></p> <ul style="list-style-type: none"> <li>• The acquisition should fit with Sonae Capital's deal strategy and be compatible with the Group's management, governance and culture.</li> </ul> <p><b>Identification of the target processes subject to integration</b></p> <ul style="list-style-type: none"> <li>• Based on the information available, DD's conclusions and interviews</li> </ul> <p><b>Estimating capex / opex requirements</b></p> <ul style="list-style-type: none"> <li>• Ex.: offices expansion, upgrade of IT systems (eg, ERP), quality certifications, other investments</li> </ul> <p><b>Identification of potential capital gains from integration</b></p> <ul style="list-style-type: none"> <li>• Synergies (i) technical, (ii) commercial, (iii) operational or (iv) financial, depending on the target and type of transaction</li> </ul> <p><b>Elaboration of the Acquisition and Integration Plan</b></p> <ul style="list-style-type: none"> <li>• Plan should respect the New Business Acquisition and Integration Framework, and should be validated by Senior Management</li> <li>• Introduction to the Midaxo Platform for future monitoring</li> </ul>
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**Overview**

Integration process planning

Validation of costs and synergies estimates from the acquisition

**Relevant Teams**

PD / M&A Team  
COO / Business Units Administration  
Senior Management  
Shared Services

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### C4 Investment Case conclusion

<p><b>Precedents</b></p> <p>C3. PMI Planning + Onboarding</p> <p><b>Overview</b></p> <p>Investment Case review based on the newly received information</p> <p><b>Relevant Teams</b></p> <p>PD / M&amp;A Team COO / Business Units Administration Senior Management</p>	<p><b>Main Tasks</b></p> <table border="1"> <thead> <tr> <th>Task</th> <th>Risks and Notes</th> </tr> </thead> <tbody> <tr> <td data-bbox="614 577 774 705"> <p><b>1. Investment Case Review</b></p> <p>In the case of a transformational add-on / deal, the Business COO is responsible for the Investment Case</p> </td> <td data-bbox="782 577 1228 705"> <p><b>Investment Case review, taking into account the main findings from the post-NBO steps</b></p> <ul style="list-style-type: none"> <li>• Business Plan review, if necessary</li> <li>• Review of rational value creation</li> <li>• Impacts (effective or contingent) of DD</li> <li>• Need to fill in any procedural or skill gaps identified in the interviews and at the planning stage</li> <li>• Quantification of the synergies / levers provided by Sonae Capital</li> </ul> </td> </tr> <tr> <td data-bbox="614 716 774 761"> <p><b>2. Internal Investment Case Validation</b></p> </td> <td data-bbox="782 716 1228 761"> <ul style="list-style-type: none"> <li>• Board / Executive Commission validation</li> </ul> </td> </tr> </tbody> </table>	Task	Risks and Notes	<p><b>1. Investment Case Review</b></p> <p>In the case of a transformational add-on / deal, the Business COO is responsible for the Investment Case</p>	<p><b>Investment Case review, taking into account the main findings from the post-NBO steps</b></p> <ul style="list-style-type: none"> <li>• Business Plan review, if necessary</li> <li>• Review of rational value creation</li> <li>• Impacts (effective or contingent) of DD</li> <li>• Need to fill in any procedural or skill gaps identified in the interviews and at the planning stage</li> <li>• Quantification of the synergies / levers provided by Sonae Capital</li> </ul>	<p><b>2. Internal Investment Case Validation</b></p>	<ul style="list-style-type: none"> <li>• Board / Executive Commission validation</li> </ul>
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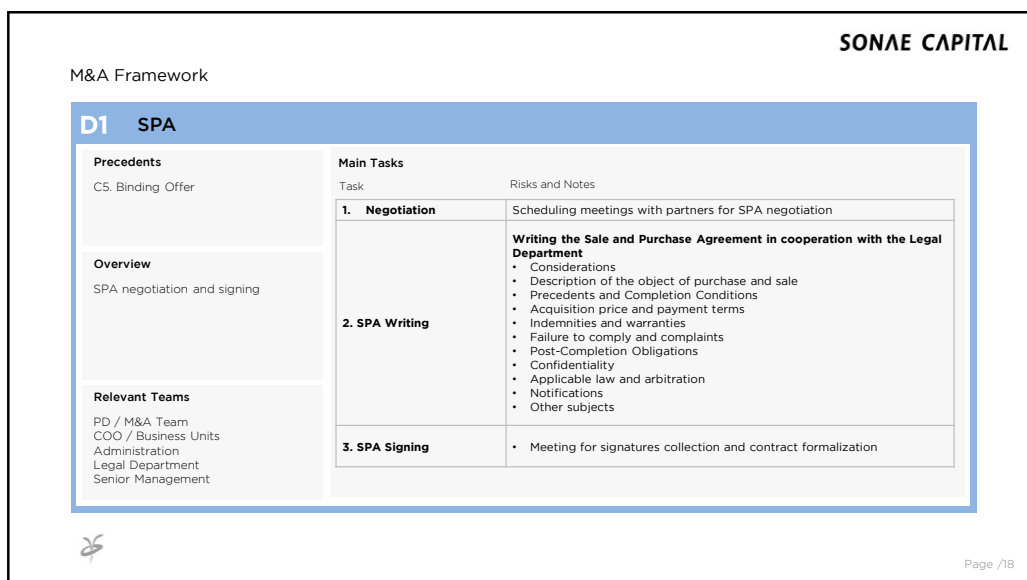
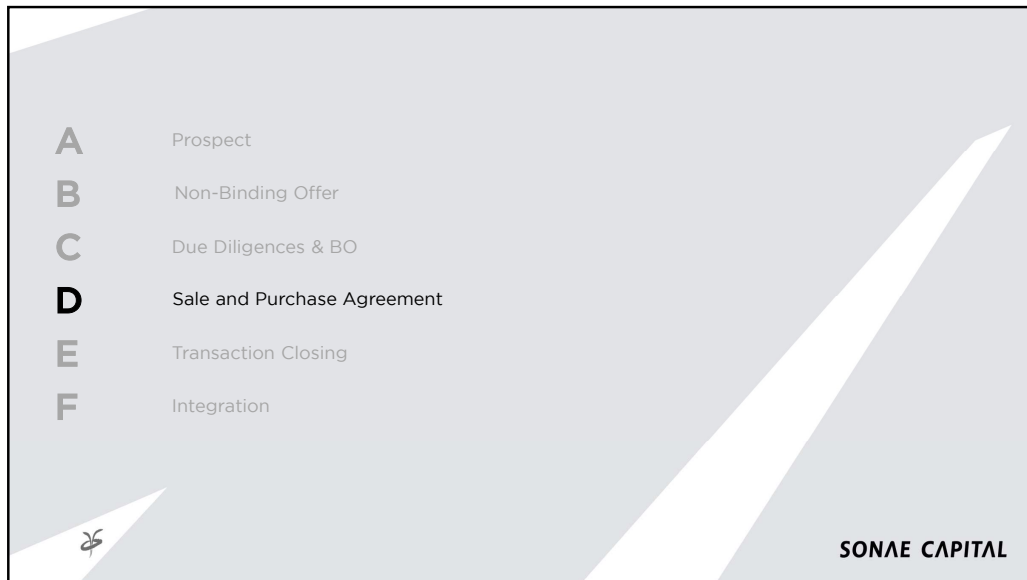
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### C5 Binding Offer

<p><b>Precedents</b></p> <p>C4. Investment Case conclusion</p> <p><b>Overview</b></p> <p>Binding Offer Writing</p> <p><b>Relevant Teams</b></p> <p>PD / M&amp;A Team COO / Business Units Administration Legal Department Senior Management</p>	<p><b>Main Tasks</b></p> <table border="1"> <thead> <tr> <th>Task</th> <th>Risks and Notes</th> </tr> </thead> <tbody> <tr> <td data-bbox="614 1467 774 1512"> <p><b>1. BO writing</b></p> </td> <td data-bbox="782 1456 1228 1512"> <ul style="list-style-type: none"> <li>• Drafting of the Binding Offer in cooperation with the Legal Department</li> <li>• Inclusion of provisions to reduce / mitigate the previously identified risks and contingencies</li> </ul> </td> </tr> <tr> <td data-bbox="614 1523 774 1545"> <p><b>2. Legal approval</b></p> </td> <td data-bbox="782 1512 1228 1545"> <ul style="list-style-type: none"> <li>• Validation of the final version of the document with the Legal Department</li> </ul> </td> </tr> <tr> <td data-bbox="614 1556 774 1601"> <p><b>3. Signature collection and BO submission</b></p> </td> <td data-bbox="782 1545 1228 1601"> <ul style="list-style-type: none"> <li>• Signatures collection</li> <li>• BO submission (in digital format and physical format)</li> <li>• Updating the project status in Midaxo</li> </ul> </td> </tr> </tbody> </table>	Task	Risks and Notes	<p><b>1. BO writing</b></p>	<ul style="list-style-type: none"> <li>• Drafting of the Binding Offer in cooperation with the Legal Department</li> <li>• Inclusion of provisions to reduce / mitigate the previously identified risks and contingencies</li> </ul>	<p><b>2. Legal approval</b></p>	<ul style="list-style-type: none"> <li>• Validation of the final version of the document with the Legal Department</li> </ul>	<p><b>3. Signature collection and BO submission</b></p>	<ul style="list-style-type: none"> <li>• Signatures collection</li> <li>• BO submission (in digital format and physical format)</li> <li>• Updating the project status in Midaxo</li> </ul>
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**D2 SHA**

<p><b>Precedents</b></p> <p>C5. Binding Offer</p> <p><b>Overview</b></p> <p>SHA negotiation and signing</p> <p><b>Relevant Teams</b></p> <p>PD / M&amp;A Team COO / Business Units Administration Legal Department Senior Management</p>	<p><b>Main Tasks</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Task</th> <th>Risks and Notes</th> </tr> </thead> <tbody> <tr> <td><b>1. Negotiation</b></td> <td>Scheduling meetings with partners for SHA negotiation</td> </tr> <tr> <td><b>2. SHA Writing</b></td> <td> <p><b>Writing the Shareholder Agreement in cooperation with the Legal Department</b></p> <ul style="list-style-type: none"> <li>Considerations</li> <li>Composition of governing bodies and their replacement</li> <li>Resolutions of the Board of Directors</li> <li>Reserved issues for governing bodies</li> <li>Exclusivity and non-competition</li> <li>Sale / Purchase Options</li> <li>Rules applicable to the transfer of participation</li> <li>Non-compliance</li> <li>Law and arbitration</li> <li>Confidentiality</li> <li>Changes</li> <li>Notifications</li> <li>Validity</li> <li>Other subjects</li> </ul> </td> </tr> <tr> <td><b>3. SHA Signing</b></td> <td> <ul style="list-style-type: none"> <li>Meeting for signatures collection and contract formalization</li> </ul> </td> </tr> </tbody> </table>	Task	Risks and Notes	<b>1. Negotiation</b>	Scheduling meetings with partners for SHA negotiation	<b>2. SHA Writing</b>	<p><b>Writing the Shareholder Agreement in cooperation with the Legal Department</b></p> <ul style="list-style-type: none"> <li>Considerations</li> <li>Composition of governing bodies and their replacement</li> <li>Resolutions of the Board of Directors</li> <li>Reserved issues for governing bodies</li> <li>Exclusivity and non-competition</li> <li>Sale / Purchase Options</li> <li>Rules applicable to the transfer of participation</li> <li>Non-compliance</li> <li>Law and arbitration</li> <li>Confidentiality</li> <li>Changes</li> <li>Notifications</li> <li>Validity</li> <li>Other subjects</li> </ul>	<b>3. SHA Signing</b>	<ul style="list-style-type: none"> <li>Meeting for signatures collection and contract formalization</li> </ul>
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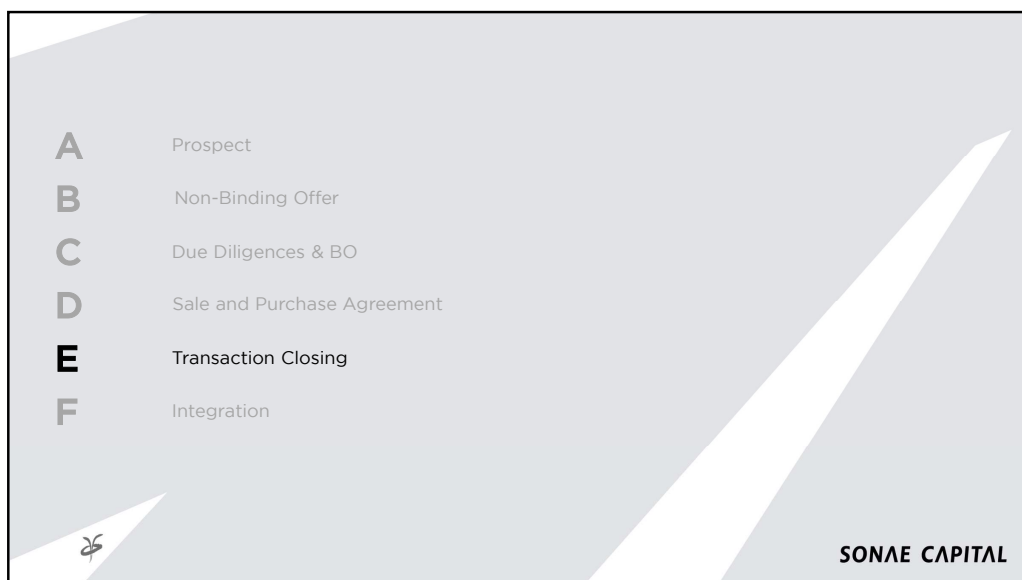
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M&A Framework

**D3 Transaction Announcement**

<p><b>Precedents</b></p> <p>C5. Binding Offer</p> <p><b>Overview</b></p> <p>Public announcement of the transaction</p> <p><b>Relevant Teams</b></p> <p>PD / M&amp;A Team COO / Business Units Administration Legal Department Senior Management</p>	<p><b>Main Tasks</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Task</th> <th>Risks and Notes</th> </tr> </thead> <tbody> <tr> <td><b>1. Communication Writing</b></td> <td> <ul style="list-style-type: none"> <li>Communication writing, in cooperation with the Legal Department and the Counterparty</li> </ul> </td> </tr> <tr> <td><b>2. Communication</b></td> <td> <ul style="list-style-type: none"> <li>Communication publication</li> </ul> </td> </tr> </tbody> </table>	Task	Risks and Notes	<b>1. Communication Writing</b>	<ul style="list-style-type: none"> <li>Communication writing, in cooperation with the Legal Department and the Counterparty</li> </ul>	<b>2. Communication</b>	<ul style="list-style-type: none"> <li>Communication publication</li> </ul>
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M&A Framework

E1 Closing

Precedents

D1. SPA

Overview

Formalization of the transaction, after confirming compliance of Precedents conditions listed in the SPA

Relevant Teams

PD / M&A Team  
COO / Business Units  
Administration  
Legal Department  
Cash & Liquidity Mgt.  
Senior Management

Main Tasks

Task

Risks and Notes

**1. Verification of compliance with precedent conditions**

Confirmation that all SPA Precedent conditions are met (including non-opposition by regulatory agencies, if applicable)

**2. Price Adjustment**

Clearance of eventual Price Adjustments (if applicable)

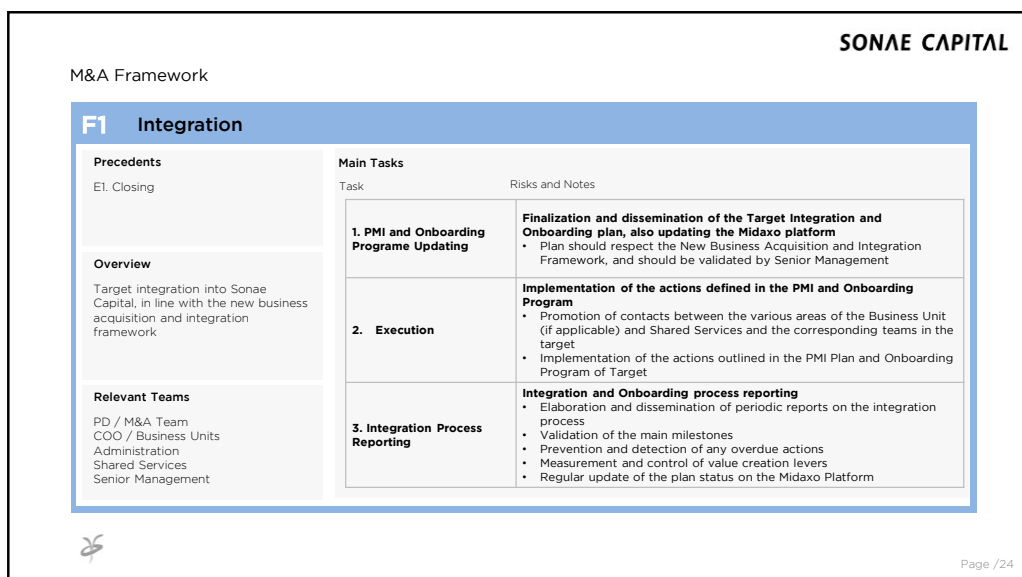
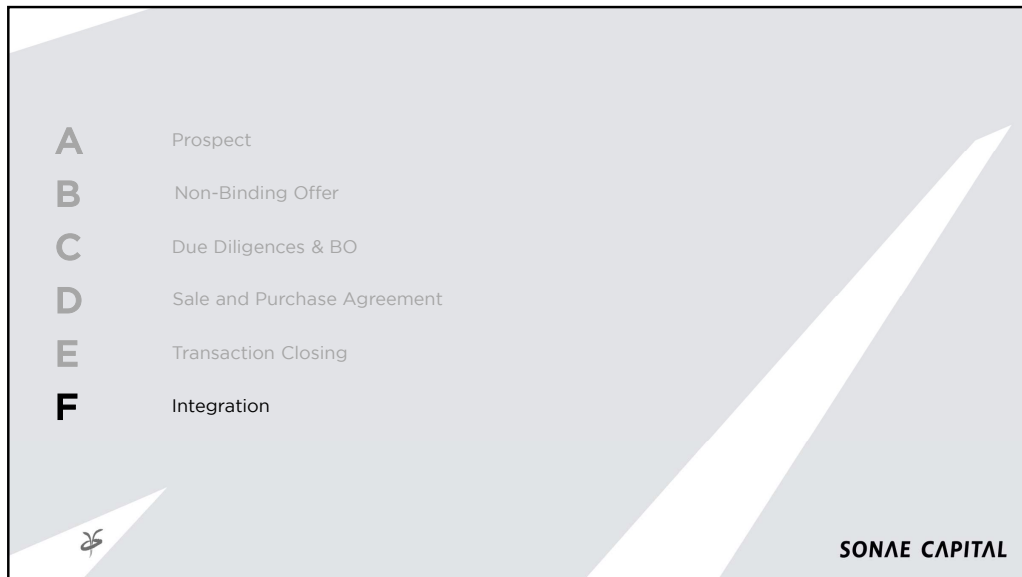
**3. Transmission Formalization**

Carrying out all the procedures and delivery of all the documents necessary for the transmission

**4. Closing Communication**

Closing communication, in cooperation with the Legal Department and the Counterparty

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M&A Framework

## F2 Contract Managment

<p><b>Precedents</b></p> <p>E1. Closing</p> <p><b>Overview</b></p> <p>Post-transaction issues management as described in the SPA</p> <p><b>Relevant Teams</b></p> <p>PD / M&amp;A Team COO / Business Units Administration Legal Department Senior Management</p>	<p><b>Main Tasks</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Task</th> <th style="width: 60%;">Risks and Notes</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;"><b>1. Issues Management</b></td> <td style="padding: 5px;"> <ul style="list-style-type: none"> <li>• Listing of the SPA issues in the Midaxo Platform</li> <li>• Assignment of owners (business manager, or member of the relevant Shared Services team)</li> <li>• Scheduling (if applicable)</li> </ul> </td> </tr> <tr> <td style="padding: 5px;"><b>2. Operations</b></td> <td style="padding: 5px;"> <ul style="list-style-type: none"> <li>• Regular report of the open issues</li> <li>• Update of Midaxo platform</li> </ul> </td> </tr> </tbody> </table>	Task	Risks and Notes	<b>1. Issues Management</b>	<ul style="list-style-type: none"> <li>• Listing of the SPA issues in the Midaxo Platform</li> <li>• Assignment of owners (business manager, or member of the relevant Shared Services team)</li> <li>• Scheduling (if applicable)</li> </ul>	<b>2. Operations</b>	<ul style="list-style-type: none"> <li>• Regular report of the open issues</li> <li>• Update of Midaxo platform</li> </ul>
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